471

TRANSACTIONS

OF THE

Literary and Historical Society

OF QUEBEC.

SESSION OF 1865-'66.

NEW SERIES—PARTS 4 and 5

Quebec:
INTED BY MIDDLETON & DAWSON, AT THE "GAZETTE"
GENERAL PRINTING ESTABLISHMENT.
1867.

TED FOR THE SOCIETY by *La Semaine Commerciale Ltd* — 1927

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TRANSACTIONS

OF THE

Literary and Historical Society,

OF QUEBEC.

SESSION OF 1865-6.

PAPER I.—OPENING ADDRESS.

BY REV. JAMES DOUGLAS VICE-PRESIDENT.

(Read before the Society, 15th November, 1865.)

The untoward event, which imposes upon me, the youngest of the Vice-Presidents elected at the beginning of the year, the necessity of addressing you at the opening of another Session, has suggested a subject.

Heretofore with the departure of the Government our Society has declined. Its return has revivified it. But the animation which it more than once thus temporarily inspired was not vigorous enough to maintain much activity for any length of time after its removal. Must it be so again? Or have we not within ourselves strength enough to stand, yes, and walk, without the assistance of so unreliable a prop. If, under our present organization and mode of procedure we have not, can any change be made which would ensure so indispensable a result? To assist us in our answers I shall trace the history of the Society from its first establishment, and thereby show you what has been tried, and with what success.

The origin of our Society was explained last year by one of the original members, the Hon. W. Sheppard, in an

address at a conversazione of the Natural History Society of Montreal. " Strange to say ", he remarks, " its formation was brought about indirectly by a political movement in this wise: It is no doubt known to many of you that the late John Neilson was the owner of the *Quebec Gazette,* established in 1764. In virtue of an Act of Parliament, it possessed the privilege of publishing all official documents as they occurred. Neilson was a great politician, and was opposed to Lord Dalhousie in some points of government. This opposition Lord Dalhousie could not tolerate, and he came to the determination of establishing a paper which he could control, calling it the *Quebec Gazette, By Authority;* and he caused Dr. Fisher, co-editor of the New-York *Albion,* to come to take charge of it. Dr. Fisher had been a member of the Literary and Historical Society of New-York. He persuaded Lord Dalhousie to get up a Society with similar title and object in Quebec. This was done; Chief Justice Sewell (a slight error, as we shall see hereafter) became the first President, and Mr. Green the Secretary. The Society was in the first instance composed of high officials and courtiers, and the fee was fixed at a high rate, for some end which can only be guessed at ". For the reasons Mr. Sheppard stated the *Gazette* is silent as to the young association; but the *Mercury* even then commenced to yield it that firm support from which it has never wavered. Though Dr. Fisher may have given a name and form to the Society, the idea seems to have originated with Lord Dalhousie himself; for as A. Stuart, Esq., the president for 1838, states in his obituary notice of the noble founder: " The establishment of a Literary Society in Lower Canada appears to have occupied his thoughts from his first arrival. His impression probably was, that the time was now come when such an attempt could be made with some prospect of success, and that the Lower Province, the oldest of the Colonies, was the place where it ought naturally to originate. Accordingly, in the course of the year 1823, he called together, at the castle of St. Louis, a number of persons favourable to his design, and in a short address explained to them his views.

After apologizing for taking the lead in the absence of any other likely to do it, he stated that the advantages of such an institution were indispensable,—that, independently of other subjects of research open to all, the early history of Canada, and the language and customs of the *aborigines,* offered an immediate and prominent ground of enquiry, and concluded by offering for himself an ardent zeal and most anxious desire to promote the success of the Society by every means in his power.

" The first meeting of the Society was held on the 6th of January 1824, when an election of officers took place, and his lordship was nominated patron ".

The meeting to organize and accept the laws and bye-laws was held in the Castle of St. Louis, on Monday, the 16th of March, 1824. The Society then received the name it has ever since borne; and a constitution, not essentially different to that now in force, was adopted. There were fewer officers, however, and much higher fees. By law No. VI. it was enacted that "members of the Society, resident in the Province, shall pay, on admission the sum of five pounds, and the annual subscriptiion shall be three pounds, payable during their residence in the Province ". Accompanying the report of the meeting, is an address to the public, detailing the objects which the promoters of the Society had in view, viz.:—" To discover and rescue from the unsparing hand of time the records which yet remain of the earliest history of Canada ";and, as secondary in importance to that, " to promote every means of discovering, collecting, and procuring whatever information may throw light on the natural and early civil and literary history of the *British Provinces of North America* ".

The officers elected for the year 1824 were:—

FOUNDER AND PATRON.—*His Excellency the Right Honble. George, Earl of Dalhousie.*

PRESIDENT.—*His Excellency the Hon. Sir Francis E. Burton.*

VICE-PRESIDENT.—*The Hon. Chief Justice Valliers de St. Real, Esq.*

RECORDING SECRETARY.—*William Green, Esq.*

TREASURER AND CORRESPONDING SECRETARY. — *John Charlton Fisher, Esq., LL.D.*

"At this meeting Lord Dalhousie fully redeemed the pledge held out in his opening address, by granting annually out of his own resources the sum of £100, during the period of his stay in the Province. By means of this munificent grant the Society was enabled to enter upon the collection of a museum and apparatus, with a rapidity which would otherwise have been impossible, with its scanty resources and the paucity of its members at that period".—*Council Report of* 1824.

Thus did the Society alienate its first funds from the avowed object of its pursuits, Canadian history and antiquities.

Lord and Lady Dalhousie continued to take a lively interest in the welfare of the Society. Her Ladyship presented to the museum a collection of Canadian plants; and on their departure, his Excellency addressed an autograph letter to the President. This letter came into the possession of our late Council Secretary, who presented it to the Society before his removal to Ottawa. It is as follows:—

"Castle of St. Louis, 3rd Sept., 1828.

"Mr. President,—

"Deeply sensible of the many favours and distinguished honors which the Literary and Historical Society has conferred upon me. I cannot take my leave of it without expressing the pride and gratitude which the recollection of them will constantly nourish in my mind, and which will ever lead me to take the warmest interest in the advancement and prosperity of the Institution.

Upon the hour of my departure, I feel one act of duty still incumbent on me, and which is important to the great object of all our wishes; it is an act that would be felt painful to myself, were it not leading to the welfare of the Society, and, therefore, only am I gratified in the performance of it.

"In resigning my station here as his Majesty's representative in this country, I must also resign the distinguished title of 'Patron of this Society'. The presence of the patron at the table is too important to be dispensed with, and I therefore return into your hands an honour which I have ever highly appreciated, and shall never cease to appreciate as I ought.

"I have the honor, Sir, to be

"Your much obliged and faithful humble servant,

"DALHOUSIE.

'To the President of the Literary and Historical Society,
"Quebec".

He was not the last governor that bore the name of patron, and really performed some of a patron's duties. Sir James Kemp, his immediate successor, identified himself with the Society as intimately as its founder had done. Lord Gosford's name and annual subcription appear at the head of the list of ordinary members, and Lord Durham inaugurated his connection with the Society by the donation of the splendid collection of the Greak and Latin classies, a few volumes of which have escaped amidst the vicissitudes to which the library has been exposed, and, by presenting the Society with a number of valuable manuscripts, copied at his own expense in France. Some of these were printed in the volume of Historical Memoirs published by the Society in 1840.

The exclusive character of the Society, and the high annual subscription, invited opposition. A new Society was started, under the presidency of Colonel Joseph Bouchette, with somewhat the same aim as the Literary and Historical. It was named " The Society for encouraging the Arts and Sciences in Canada ". Of course it was discountenanced by Lord Dalhousie, but nevertheless prospered, and could soon boast of a longer list of members than its more favoured opponent. There can never, however, have been any hostility between the competing associations, as the most active members in the one were leading members in the other. But one difference is very observable between them. This Society of Arts and Sciences obtained the support of as many French as English. After the amalgamation, however, the French seemed soon to withdraw, and the united Society has never enrolled many of them on its list. This amalgamation was brought about through the intervention of Sir James Kemp, in 1829.

The joint Societies retained the name of the elder branch, and continued in the pursuit of the same object they had both heretofore followed. For in the first volume of our transaction, published in 1829, out of 17 papers, but three are on historical subjects, two only of which bear upon American topics, and that despite the repeated

determination that the Society should really sustain its character as a depository and disseminator of historical tradition.

A special grant of £250 was in that year made by the Legislature. It was principally laid out on philosophical and chemical apparatus, allowed in a report of a few years later to have been of little or no service, as the Society never had a laboratory or theatre suitable for experimental illustrations and lectures, even if members had been found desirous of so using them. The appointment of curator of apparatus, now so complete a sinecure, was then a responsible office.

In 1831 our present charter was granted to the Society; it issued a second volume of transactions as bulky as the first, and bade fair to enjoy increasing prosperity. It was composed of the most influential men of the city, many of whom, besides lending their name and contributing their subscription, really assisted in its work. In 1836 the report of Council gave the following:—

Honorary in Europe and America.....	61
Corresponding.....	96
Ordinary and Associate.....	154
Actual residing members supporting Society	127

It was the only period in the history of the Society when it could be said that "any considerable accession was not to be expected, as it already embraced a large proportion of the resident inhabitants, who from their tastes and pursuits might be induced to give it their support"

The 3rd volume of Transactions, containing 38 papers, appeared in 1837.

In 1838 was published the 1st volume of Historical Memoirs. It was followed in 1840 by another collection of documents, obtained from the archives and public offices of France by Lord Durham and the Revd. M. J. Holmes, of the Quebec Seminary; and in 1843, by a republication of some old and inaccessible narratives of early North American discovery.

But the political troubles which convulsed the Province during the latter part of the decennial period from 1830-40, diverted the public mind from any quieter pursuits than politics. This told upon the Society, not so much in diminishing the number of members as in what is even more injurious, diverting their attention and lessening their interest in its special objects. Then, in 1839, arose the lament which we are echoing to-day, the removal of the civil government with its many efficient members. The hold which the Society had on the public mind before the Rebellion it appears never to have recovered: for though it now occupied spacious rooms, in the old Parliament Buildings; had a mineralogical cabinet of over 1300 specimens; and the care of the extensive collection of stuffed animals, made by M. Chasseur, and owned by the Province; and a well selected library of a thousand volumes, the annual reports complain of a "falling off in the attendance at meetings", and that "few original papers were read before it in the ordinary course", Rep. for 1840; or that "the funds are in a very low state", Rep. for 1841. This condition of things was still further aggravated by the establishment of the Quebec Library, and the Quebec Library Association, which evidently offered greater attractions than the old Society, and won away its members from their adherence. To so low an ebb did affairs at last sink, that subscriptions were received in 1850 from only 14 members, and more than once only two papers are reported as read during the session.

In 1852, the return of the government was hailed as a relief in so desperate a condition of affairs; and certainly it did somewhat fill up the list of members. But its coming was not unattended with drawbacks; for parliamentary requirements compelled that the space allotted to the Society should be restricted. So cases were pulled down and cut to pieces and re-erected, only again to be pulled down and huddled together in greater confusion than before. Sorrowful are the complaints of the Council, and indignant its appeal for compensation. But compensation

never came. A general conflagration however did come to solve that question, and give rise to several others. The Parliament Buildings were burnt down in 1854, and the Society went in search of lodgings. They found some rooms over Henderson's grocery store, in St. Louis street, and thither they removed what of their property remained. But the fire, and the accession to their numbers from among the government officials, and a grant of £250 to make up for losses sustained, revivified it: for the meetings began again to be attended, the full complement of papers was read, and in 1855 there was published Vol. IV. of the Transactions, which had been so long in press that two of the members, who contributed papers to it, had died ere it appeared.

Then the government again left, and the Society, in consequence, again languished. Yet it succeeded in paying rent for its miserable accommodation, and even moved into somewhat better lodgings in St. John street. There, in the course of time, the government once more found it.

All those who had previously belonged to the Society again joined, and to their number was added our present President, to whom certainly, more than to any dozen members, is due the praise and honour of raising the Society to the comfortable position it now occupies. But this result even his energy and tact would hardly have brought about, had it not been for another fire, which, this time, as you all remenber, left us only 700 sodden and coverless books, out of the fine library of 4,000 volumes, which had been amassed up to the year 1862. The few moth-eaten, unearthly-looking creatures which had been saved from the museum in the first fire, we were spared the trouble of burning; and after the fire we sold all that remained of our apparatus for old brass. The fire had the good effect, however, of awakening our fellow townsmen to a recollection of our existence, and created such sympathy in our favour that an increase of members rapidly followed. Besides which, an arangement was made with Morrin College, whereby we have come to occupy more becoming quarters than the Society has enjoyed

since she was so unceremoniously turned out of her fine apartments in the old Parliament Buildings, and shoved into a corner.

Since 1862 we have had not only a full roll, but we have done our due share of work. Under Mr. Faribault's editorship there have been published a pamphlet, appended to the transactions of 1862, entitled "Documents sur Jacques Cartier" and a "Mémoire du Sieur Ramesay;" and to the Transactions have been added 24 papers. A classified catalogue of the library was also issued in 1862.

And now we have arrived again at one of the crises in our history, when we are called upon to rely on our own resources. Is the result to be what it heretofore has been, or is it not?

It is certainly disheartening, this review of the past and its failure: for there were always some members whose whole hearts were in the work, and who spared themselves no troubles in furthering its cause. At first there were such men as Capt. Bayfield, Lieut. Baddeley, Chief Justice Sewell, and Mr. Stuart; and afterwards there were those who had served the Society in its brighter days, and who lived or remained in town to support it in its days of adversity. Take, for instance, the late Dr. Wilkie. In 1844, when the attendance at the meetings was by no means encouraging, of seven papers read no less than four were by him. And he was not alone in his attachment to the once prosperous undertaking. There were the late Arch. Campbell, Esq., who never forsook it, and whose name stood in the Treasurer's books from the time they were first opened till the year of his death; and that single-hearted man, Robert Symes, and the Messrs. Cary, father and son, and Judge Black, who, though he never took part in the proceedings, never withdrew his name from the list; and our old friend M. Faribault, and a Capt. McDougall, who not merely worked hard in the Society's interests, but gave it his extensive collection of charts and atlases and nautical works.

And there were many experiments tried to encourage

literature and keep the Society in working order. For instance: prizes were for many years offered for the best essays in any branch of science, literature and art, in prose or poetry, as well as for the best historical and landscape painting, or piece of sculpture. But so very few competitors were found, that when the plan had been tried once and again, it was finally abandoned as a hopeless failure after 1852—the last occasion on which the Society's silver medal was offered for competition. Public lectures also were delivered under the auspices of the Society, but with no better result. So many attempts ending unsuccessfully, one is almost driven to admit that it is a hopeless endeavour, that of keeping the Society in a healthy, vigorous, working condition; and that its prosperity must oscillate with extraneous influences, till at last some time or other there shall be such a run of baneful circumstances against it, that it must succumb, as so many others have done before it. But it would be ignominious to yield to such an issue without a struggle; and if that struggle is to be made with any good prospect of success, we should begin it before the flush of good fortune subsides, and a fresh decline sets in.

One notable circumstance has struck me in looking over our old reports: that so few young men have taken an interest in the Society. Unfortunately this is an evil that can hardly be wholly remedied, yet, as one of our objects is to diffuse a taste for higher pursuits than too generally occupy the leisure of our young men, and offer food for its gratification, we should bear in mind, in the disposal of our funds, that we have to work upon those who are disinclined to literary occupation, and must, therefore, be tempted by the amenities of literature. That can be done without filling our shelves with novels. And measures might be taken for carrying out the plan contemplated last year, of admitting, at a reduced rate of subscription, and with only limited privileges, the large and useful class of our young men, to whom the payment of the full fee might be so burdensome as to exclude them.

A subject upon which no single report is silent is the Legislative grant. Except on two occasions, and that for special purposes,the grants from 1831 to 1860 never exceeded £50 per annum, and in 1835 and 1836 failed altogether. In 1860, on the return of government, it was raised to $1,000, at which it stood the year following, and has been subsequently reduced to $700 per annum. It would be unreasonable to suppose it will continue to stand at that high figure, and therefore we should count upon its reduction. But might not our funds be recruited from some other source? I find as much as £17 have been raised per annum by the sale of our Transactions, when I presume they were not distributed gratuitously to our members. Now this gratuitous distribution necessitates the publication of a larger number than would otherwise be required, and serves very little purpose; for those who are interested in their contents would not complain at paying a trifle for the yearly number, and those who are not, throw the book into the waste paper basket, and it goes the way of all such reading matter. The subject is worthy of being again re-opened, and with it other questions respecting our Transactions. However little they may be esteemed and read among ourselves, they occupy a place in foreign libraries, side by side with the proceedings of more illustrious societies, and therefore give us a status which is of no little importance to us. I should, therefore, be sorry to see their publication discontinued. But they might still be issued, though at a less cost, and in a manner calculated to keep our doings more prominently before the public than they are. I refer to their publication in some one of the local newspapers, previous to their being embodied in a volume, not, however, in the skeleton form in which they appeared in the Canadian Journal in 1854. The subject is now under consideration by the Council. In like manner we might continue the publication of interesting manuscripts, which in fact has been done this past year by our Librarian, at a much lower cost than the work could otherwise have been accomplished. And this brings me to another remark, which has been often made

(and I think with justice), but cannot be too often repeated that the Society does not adhere closely enough to its avowed object, the gathering and publishing of historical and archaeological matter, illustrative of the aborigines of this country, and of its earliest European settlements. Every year the Indian tribes are perceptibly fading away before the influence of European civilization, either dying out under its uncongenial system, or losing their identity in the unequal amalgamation. In the recollection of even the younger among us, much of the naturel character of the aborigines in our neighbourhood has been lost. Such a gathering as welcomed Lord Durham at the Castle of St. Louis could not be collected now. Their costume will soon be doubtful, and their manners and costoms extinct, while many an interesting point, which could still be decided, will be left without the possibility of solution. Then again with regard to our local history: one of the most interesting sources of information in writing it would be the *Quebec Gazette,* whose establishment dates back beyond a century. But of this important work only one complete copy exists, and that in the possession of a private family, where it is doubly exposed to destruction by fire or other accidents. Under these circumstances, would it not be wise to avail ourselves of this and such other advantages as are still within our reach; and would not doing so give a zest to our proceeding, and enlist in our interest many who are now very lukewarm? I mean that it would be well if some of our members who are in earnest would pursue their studies in that line, and employ their leisure in what would not only be found absorbingly interesting by themselves, but would be of permanent benefit to history.

But what is of hardly less importance is the possession of suitable and permanent accommodation for our Library and Musuem. Much of the Society's funds has been wasted in transporting its cumbrous effects from one place to another, and making the necessary alterations in its furniture, which every fresh remove entailed. Feeling this,

the Society has twice endeavoured to remove this obstacle to its progress. In 1844 there were overtures made to the other literary Societies then in existence, with a view to a general union of their property, and a fusion of their respective laws and bye-laws into one code. It was thought if this could be effected, their combined resources would suffice to erect a building devoted to their exclusive use. As might have been foreseen, the scheme came to naught. Ten years later (after the fire at the Parliament Building), a fresh attempt was made. The attempt and its failure are thus referred to in the Council Report of that year: "It may be mentioned that the Society has long been anxious to secure a building for its own use, where its museum and library might be deposited in safety, and in such a way as to be available, as heretofore, to the public generally, and in which we may be able to eventually establish an Astronomical and Meteorological Observatory, in connection with and under the auspices of the Society.

"In order to carry out these objects, the Council applied to the Head of the Government for a grant of a portion of the Ordnance property, on the north side of the government gardens in this city, sufficiently large for such a building as they thought necessary. We regret to say that this application, although favourably received by the Head of the Government here, has been refused by the Ordnance Department at home; the reason assigned being that the ground may be required for military purposes, in the event of the head-quarters of the military government in the Province being transported to this city.

" It is much to be regretted, for many reasons, that the prospect of being possessed of a building is not likely soon to be realized; yet we hope that our successors in office will not be discouraged by the failure of our efforts in that respect, but that they will endeavour to devise some expedient for securing for the Society a local habitation, in the enjoyment of which they cannot be disturbed ".

The injunction laid upon us is worthy of our attention.

If is true that a more advantageous arrangement than that with Morrin College could not well be made; but how long our connection may last is extremely doubtful; and whenever it does terminate we should be prepared with some feasible scheme for the erection of a building of our own. Perhaps it might be worth while renewing the application to the Imperial Government. Could we obtain a site on easy terms, I apprehend there would be no serious difficulty in raising the means for the erection of so humble a building as would answer our requirements. The Provincial Government would probably contribute something, and the balance, I am sure, would be subscribed by ourselves, with some aid from our friends. The project should be kept constantly in view; for its consummation would tend more than any thing else towards giving stability to the Society.

It remains now with ourselves to interrupt the invariable sequence of events which has heretofore followed the removal of the seat of government from our midst. We have still, after omitting the names of members whom we have thereby lost, over 100 on our roll, and we have good promise of their activity in the number of papers already promised for the coming winter; but still it will be only by redoubled energy on the part of all that we shall be able to retain the prosperity we have enjoyed the last three years.

PAPER II.—ON THE COAL-LIKE SUBSTANCE, OR "ALTERED BITUMEM," FOUND IN THE EXCAVATIONS AT FORT NO.3, POINT LEVIS, AND THE PRESENTLY ACCEPTED THEORIES ON THE ORIGIN OF COALS, BITUMENS, AND PETROLEUM SPRINGS, WITH AN ACCOUNT OF THE "CARBONIFEROUS SYSTEM" OF BRITISH NORTH AMERICA.

BY DR. WILLIAM JAMES ANDERSON, L.R.C.S.E.

(Read before the Society, 29th November, 1865.)

When it was announced in the Quebec journals, during the past season, that coal had been discovered in the excavations at Fort No. 3, at Point Levis, the report was received by many with total disbelief, by several with doubt, and by others with implicit faith. Such as believed in Sir Wm. Logan, or received dogmatically what he had said or written—or was believed to have said or written—laughed in scorn, affirming that Sir William had proved conclusively that coal could never be found in Canada. Those who doubted, though they admitted that from the absence of the carboniferous system of rocks, it was not very probable that coal would be found under the received condition, yet believed that it was not impossible, from what had occurred in the adjoining Province of New Brunswick, that coal, or at any rate a substance possessing many of the most valuable properties of coal, might be found in sufficient quantity to make it of economic importance. The third party, having no faith in Sir William, or the science which he has done so much to elucidate and adorn, but believing all things possible, not only believed that coal had been found, but would have been equally ready to admit that a deposit of gold, silver, and precious stones had been discovered, similar to that in the tunnel through Mount Cenis, of which such *authentic* accounts have reached us.

Believing that vague and, in the minds of many, very erroneous views prevail on the subject, I have thought it might be interesting to the Society to have it brought under review; and as I am aware that some of the members have not hitherto devoted their attention to geology, in treating my subject I shall endeavour to divest it, as much as possible, of technicalities.

It is frequently, and very properly asked, how can any geologist undertake to say that coal cannot be found in one district, and as certainly that it may in another; that gold would be found in abundance in a locality which he had never visited, and which was only known to him by reports as to its general features; and that it would be vain to seek for it in another district. The answer to this is: that geology is based on observation and deduction, and that its students have been able to classify, in distinct series, the various strata of which the crust of the earth has been found to be formed. It will be convenient for me to recognise two grand natural divisions: the igneous, or volcanic and plutonic, and the aqueous or neptunic. The igneous, as the name implies, have been produced by the agency of fire, and are the lowest in the series; they are also called azoic, for no traces of animal or vegetable life being found in them; they comprehend all the granites and certain porphories. The aqueous are also designated *sedimentary* or stratified, from their having been deposited at the bottom of the sea, in strata or layers; they are likewise known as "*fossiliferous*", from their containing the remains of contemporaneous animals and plants. Between these two great divisions we have a very important series, the metamorphic or "*changed*" rocks, which may have been orignally sedimentary, and containing organic remains, but have been so completely changed by the action of fire, or some other agency, as to have lost their orignal structure, and all traces of organism.

When we come to consider the received theories of the origin of coal, you will at once see that we need not look in the first division for coal, but must search for it among the stratified rocks; and I think that I will be able to

adduce facts which may justify the expectation that in the neutral ground of the metamorphic rocks, we shall find some *metaliferous* and some *carboniferous*. "The oldest geological formations," says Dr. Dawson, "are of marine origin, and contain remains of marine animals, with those of plants supposed to be allied to the existing seaweeds. Geology, however, cannot assure us, either that no land plants existed contemporaneously with these earliest animals, or that no land flora preceded them. These oldest fossiliferous rocks may mark the commencement of animal life, but they testify nothing as to the existence or non-existence of a previous period of vegetation alone. That there were plants before this period, we may infer almost with certainty from the abundance and distribution of carbonaceous matter in the form of "graphite" in the Azoic or Laurentian rocks of Canada; but of the form or structure of these plants we know nothing."

Among the systems of stratified rocks we find an extensive series, surmounted by a system called the "*newred*", and underlaid by another called the "old red sandstone; and to this, the term carboniferous or *coal*-bearing has been applied. This system is of inestimable importance in an economical point of view; it is also of great interest to the geologist, from the singular and interesting fossils which it contains, which bear testimony to the changes which the earth's surface has undergone, and to the character of its animals and vegetables during a very long and important period of its history.

On the western coast of the county of Cumberland, in the Province of Nova Scotia, fronting Chiegnecto Bay, there is an extensive range of cliffs, which have been cut and kept clean by the action of the water, and which furnish the finest and most complete section of the carboniferous systems to be found in the world. So wonderful is this section, that, as early as 1842, the now well-known "South Joggins" attracted the attention of Sir Charles Lyell and Sir Wm. Logan—both of whom visited the locality for the purpose of verifying their theories on the

formation of coal. In 1852 Sir C. Lyell, accompanied by Dr. Dawson, again visited the Joggins, and made a detailed examination of that portion where the coal seams are most frequent. Of this examination Dr. Dawson, in his "Acadian Geology," has furnished a most minute and interesting account: and it is the best view I have found of the carboniferous system and the formation of coal, I have thought it advantageous to give you an epitome of it. I may here mention, however, that Sir Wm. Logan had some time before made a detailed examination, and had estimated the total vertical thickness of the carboniferous formation at no less than 14,570 feet, or about three miles, and found them every where *devoid of marine organic remains.*

After describing 7636 feet of strata, which consisted of sandstones, marly clays thick bed of limestone and gypsum, Dr. D. says, they reached the commencement of the true coal measure, extending over 2800 feet; and this, for the matter of convenience, Dr. Dawson has described under 29 sections, the sum of which is as follows:—The entire section contains 76 beds of coal, and 90 distinct stigmaria underclays. All the coals, *except two,* rest on stigmaria underclays; and there are 16 stigmaria underclays without coals. Erect plants were observed at 22 levels. There are 24 bituminous limestones, 17 of which are immediately connected with seams of coal.

Referring to the term "stigmaria underclay," used above, it may be here explained that underclay is technically applied to the bed of clay which *generally* underlies a coal seam. "Stigmariae" are very peculiar fossil roots, of very frequent occurrence in the coal measures, and now ascertained to be the roots of an extinct tree called the sigillaria, which is considered to have been a principal agent in the formation of coal. The stigmaria derived its name from the pits or spots left by its rootlets;—the sigillaria, from the rows or leaf-scars which extend up its trunk. The roots of the stigmaria at their departure from the trunk are four, which divide, at equal distance, into eight, sixteen, and thirty-two branches, each giving off an immense number of rootlets.

Believing the underclays to have been soils, we have reason to conclude that the coal seams were originally vegetable matter accumulated in the manner of peat; for, on a minute examination of the coal, it is found to be composed in part of woody fragments sometimes retaining their structure so perfectly as to enable us to ascertain the kind of wood to which they belonged. These appearances are best seen in the coarser and more impure coals; in the purest, the vegetable matter is reduced, by chemical change and pressure, to an almost homogeneous mass.

At the commencement of the section, Dr. Dawson found a soil, four feet in depth, supporting a layer of vegetable mould which had been compressed into half an inch of coal; above the coal rested a dark-coloured limestone, filled with innumerable little shells of the *cypris*—the modern representatives of which reside in countless numbers in ponds and river estuaries. The bog, then, from subsidence, had become a pond or lagune, in which cyprides and other aquatic animals must have existed for some time, to form two inches of hard bituminous limestones. The lagune was dried up, and on the rich marly soil grew another forest; and the result was a thicker seam of coal, which in its turn was inundated and covered by a considerable thickness of shales and bituminous limestones, in which are perceptible the cypris and the scales of small fishes, bivalved, *modiolae* allied to the common mussel, and a small whorled shell, *spirorbis*. These limestones alternate with shales, indicating irruptions of mud. In the highest of these beds, which probably had become a swamp, trees took root which in time were buried by an irruption of sand, in which they, and an undergrowth of *calamites*, still stand in an erect position.

Time will not permit us to enter more fully into the subject. So refering you to the "Acadian Geology" for further details of much interest, I can only here say the whole series of the Joggins furnish repetitions of the facts already given; and a short history of one group will suffice to give an idea of the successive changes which have

produced the whole section. As to the time required for the production of such vast deposits, it must have been so great that some have not ventured to define it: Sir Charles Lyell estimates it from three hundred and fifty thousand to two millions of years. Here is the history of the groups:—First, there was deposited under the water a stratum of clay, which from the withdrawal of the water or the emergence of the solid bed, became a soil suitable for the support of vegetable life. Here grew the sigillaria, a tall branchless tree, whose trunk was covered with a thick, smooth, and very indestructible bark, ribbed and regularly clothed with long, flat, dependent leaves, reaching a height of forty feet. They grew in dense groves and many species have been discovered. Under the sigillaria grew a thick growth of *poacites*,—plants with long striated leaves, six inches broad and three feet long, like gigantic iris plants. There were, also, probably several varieties of ferns, of which two hundred and fifty species have been found; many of them strikingly tree ferns. In process of time a peaty bog was formed. On this peaty soil grew trees, supposed to be coniferous *lepidodendra*, of which forty specimens have been found; but, in the present instance, now only represented by a stump of mineral charcoal, which, being about one foot in diameter, probably required for its growth about fifty years;—these trees were killed by the inundation of the bog. During their decay sigillariæ again sprung up to the diameter of two feet, when they were in turn overwhelmed by sediment, which buried their roots to the depth of about eighteen inches. At this level, calamites attaining the diameter of four inches, and sigillariae one foot, again grew. These plants were again embedded in a somewhat coarser sediment, but so gradually that sigillariae grew at two higher levels, before the accumulation of mud and sand attained the depth of nine feet, at which depth the original large sigillariae that had grown immediately over the clay, were broken off, and their hollow trunks filled with sand. Before being filled with sand, these hollow stumps must have projected from a swamp

or terrestrial surface; as in them were found remains of reptiles and land shells, as well as many fragments of calamites, poacites and lepidostrobus, evidently introduced before the sedimentary matter. In one of these Sir C. Lyell and Dr. Dawson found the jawbone, containing teeth, of an animal called "Dendrerpeton Acadianum," and the shell of a land snail (pupa?) The remaining beds of this group give evidence of the condition of swamp for a long time after trees last noticed were completely buried. They include, in a thickness of twenty-eight feet, three underclays supporting coaly beds, and one with erect stumps. One of the coaly beds, which alternates with laminae of shale, is filled with flattened trunks of sigillaria and lepidodendron, indicating how small a thickness of coaly matter may mark the time required for the growth and decay of many successive forests.

The whole series of events recorded in the Joggins, indicate "gradual and long-continued subsidence, with occasional elevatory movements, going on in an extensive alluvial tract teeming with vegetable life, and receiving large supplies of fine detrital matter. On the one hand, subsidence tended to restore the original dominion of the water: on the other hand, elevation, silting up, and vegetable and animal growth, built up successive surfaces of dry land. For a very long period these opposing forces were alternately victorious, without effecting any very decided or permanent conquest—but, in the end, the whole series was dislocated and upheaved by one grand convulsion; and thus we have been enabled to read how these successive systems were "founded, flourished and decayed."

We have remarked that, in the series, there were 76 beds of coal and 90 distinct stigmaria underclays; and that all the coals, except two, rest on stigmaria underclays; and that there are 16 underclays without coal. This is a very important observation, because, up to this discovery, it was believed that coal could not be formed without stigmariae; and I find that Sir C. Lyell has recor-

ded that, according to Sir Henry de la Beche, the coal beds in South Wales all present one characteristic feature, in having each of them what is called its *underclays*. And Sir Wm. Logan first announced, in 1841, that they were regarded by the colliers of South Wales as an essential accompaniment of each of the one hundred seams of coal met with in their coal field.

Having shown how coal is supposed to be produced, I shall now speak of the discovery of the various mines now worked in British North America; and shall commence by giving an account of the Albion mine, at Pictou, Nova Scotia, it having been the earliest worked, and being, up to this date, the most important, both as regards the thickness and extent of the seam, and the quantity of coal which it has yielded.

As early as 1817 coal—the existence of which had been known to the aborigines—was discovered on the East River of Pictou, Nova Scotia, by the Rev. Dr. McGrigor, a Scotch immigrant, who used it for domestic purposes. It was also worked at the outcrop, for several years, by Adam Carr and Ralph Patrick, Scotch miners, and by the late Robert McKay, Esq., a native of the county. Mr. McKay was a young man of intelligence and enterprise, and entered into a contract with certain parties in Halifax to supply them with coal—then a very rare article in the Province. He engaged all his capital and credit, and during the winter succeeded in excavating about 200 chaldrons, which he unfortunately placed on the "interval" of the river, for the more convenient shipping in the spring; but on the breaking up of the ice, the flood swept away, or covered with mud, the whole of his wealth. Messrs. Carr & Patrick were more fortunate, and for several years continued to supply blacksmiths and a few others with coal, at *ten* shilling a chaldron.

In 1826 a monopoly of all the mines and minerals in Nova Scotia and Cape Breton was granted by George IV. to his brother, the Duke of York; who sold his right to Messrs. Rundell & Brydge of London, who formed a company called "The General Mining Association," which

in the same year commenced operations, under the superintendance of Mr. Richard Smith, an eminent English mining engineer, on the farm of Dr. McGrigor, which had been purchased by the Association. Operations were commenced on the largest scale and with all the appliances of modern science, and resulted in the development of coal seams far exceeding in thickness anything hitherto discovered in the old world. The coal measures of the Albion mines were found to consist of the same materials, and to contain many of the same fossils, as were subsequently found at the Joggins, already described; but they differ in the arrangement. Instead of a great number of thin beds of coal and bituminous shale, there are here a few beds of enormous thickness, as if the coal-forming process, so often interrupted at the Joggins, had been allowed to go on for a very long period without interruption. The sections of the Albion mines are not perfect; they show however, five or six seams of coal, and an immense thickness (800 feet) of black shales, with cypris and remains of ferns and other leaves. There are also *underclays* and ironstones abounding in stigmariae. The vertical thickness of the two large seams of coal—the *main* and deep seams—is 37½ feet and 22½ feet respectively. The main seam has been very extensively worked, and its outcrop can be traced for several miles; but it is remarkable that it bears its character as a seam of good coal only for a limited distance. And the measures were till lately supposed to be cut off to be the northward, by a line of disturbance running along the south side of an enormous bed of conglomerate, which succeeds these coal rocks in ascending order, or *apparently so.* The seams are not of equal quality; and the coal hitherto exported has been obtained chiefly from the upper part of the main seam, from twelve to nine feet of which are worked at the depth of 400 feet from the surface. The *deep* seam of coal, of excellent quality, lies 150 feet below the main seam. The General Mining Association also opened pits at Sydney and Bridge-port, or Lingan, Cape Breton; and at Joggins, in the county of Cumberland. They have met

with several great disasters, but they have always risen superior to them. In 1832 they had got their works, at the Albion mines, in admirable working order, when an explosion of fire-damp occurred and fired the mine; and the superintendent turned the East River into the shaft before it was extinguished. The water was not pumped out in less than two years, and at an enormous expenditure. The trade which they had just established with the United States, was for a time seriously interrupted. Some ten years after, a second most serious explosion and fire took place ; which was extinguished by stopping the vents, and filling in earth some twenty or thirty feet into the main shaft. The fire was thus extinguished; but great damage was done to the works, which had to be abandoned for some time, and new shafts were in consequence sunk. At this time the demand for coal had so increased that it far exceeded the supply—notwithstanding which the Association threw every obstacle in the way of private enterprise; but public feeling, in oppostion to the monopoly, at length became so general and powerful that the Association had to yield. Under their charter, they had to pay a fixed royalty of £5000 sterling, and six pence per chaldron on every chaldron raised beyond a certain amount. It was agreed to give the Association the right of mining over two miles at Pictou, Sydney and Cumberland—the lines and courses of the areas to be at the option of the Association. The £5000 royalty was given up, and no more royalty per chaldron was to be exacted from it than from any new companies that might be formed.

In 1851, the coal shipped or raised by the General Association amounted to 59,574 chaldrons, or a little over 89,000 tons. Now to show the great stimulus that was given to mining operations, by abolishing the monopoly, we will compare the return of 1860 with that of 1851. We find that in 1860 there were raised 172,947 tons, of the value of £85,682 sterling—61,725 tons of which were shipped to the United States. I shall make one further statement. Returns presented to the Legislature at the

Session of 1864, shew that there were raised in 1863, 429,321 tons *from twenty-two mines;* 286,758 tons of which were shipped to the United States, 65,773 to the Colonies, and 72,758 tons were consumed in the Province I may also mention that, out of 397,608 tons raised in 1862, no less than 325, 111 tons were raised and shipped by the Association; thus falsifying all their predictions as to the ruin which would overtake them should the monopoly be abolished. In the three first quarters of 1864, there were raised 406,699 tons from 24 mines, and I believe the year's return fell little short of 500,000 tons. The demand has increased with the supply; and 1865 would have shown at least as large a return as 1864, but for the falling in of the Dalhousie pit at the Albion mines.

There is another very important fact which must not be overlooked. The General Mining Association, in laying off their two-mile area at Albion mines, influenced by the general belief of geologists, that the bed of conglomerate cut off the coal measure to the north, *made that bed their northern line.* To their surprise, a twelve-feet seam of very superior coal, called the Fraser Mine, was discovered almost immediately to the north of the conglomerate; and the works are in progress to develop it extensively, under the name of the "Acadia Mine," by a company, of whom Mr. Hugh Allan of Montreal, and Mr. Cyrus Field of New York, are prominent members. Again: a few months ago, almost adjoining the Acadia mine, another seam of 18 feet was discovered by Mr. French; and lastly, Mr. Campbell of Halifax, in an adjoining claim, and only eighteen feet below the surface, discovered a seam of pure coal 25 feet thick; a sample of which I here produce. Perhaps nothing in the history of coal mines can equal this seam of coal. It has been discovered, too, at a most opportune time—just as the Dalhousie pit had fallen in and the General Mining Association were unable to supply the demand; and, to complete the good fortune of the discoverer, when Government had determined to construct the unfinished portion of the Halifax and Pictou Railway, within a most convenient distance of his discovery.

The Pictou coals are bituminous—yielding a large quantity of gas, but likewise a large quantity of ash. They are well suited for steam, gas and iron works. The texture is laminated, and there is much mineral charcoal on the surface. Its specific gravity may be stated at 1.325, and a cubic foot weighs 82 lbs., rather less than 28 feet being equal to a ton of coal.

The Sydney coal is more highly bituminous than that of Pictou, but contains a very large quantity of sulphur, which unfits it for smelting; and it is objectionable as a steam coal, from its formation of clinkers and its speedy destruction of furnaces and boilers. It is a very excellent domestic coal, leaving little ash, but producing much smoke, quickly fouling chimneys.

The Spring-Hill mine, at the Joggins, consists of a seam of three feet six inches and one foot six inches, separated by a clay of a few inches. It is a fair, free-burning bituminous coal.

The fixed price of the coal, delivered on board ship at the wharves of the General-Mining Association, is $2.50 per ton of 2240 lbs.

The other mines now worked yield coal of very different qualities; but all may be pronounced good bituminous coals. No anthracite has yet been discovered; and, if geologists are to be relied on, there is little likelihood of any being found. But this account would be incomplete if I were to omit mention of the "Fraser" oil-coal mine, which was discovered in 1859, and which I visited in 1860.It is situated a short distance north of the Albion mine and the conglomerate, and consists of two seams —one four feet and the other eighteen inches thick. The dip enables it to be worked on the inclined plane. Seventy yards down the incline a seam of bituminous coal commences, one and a half inches thick. The oil-coal occupies a position within the true coal measure. One ton yields 7 gallons of crude oil, and, near the outcrop, 200 gallons. 2400 chaldrons were raised during the year 1859, and sold at the wharf at $9 per ton. But the discovery of the oil-wells in Pennsylvania and Canada, made competition

hopeless, and the works have been stopped. I must here note for reference hereafter, when I come to speak of the deposit at Hillsborough, in Albert county, New Brunswick, that the Fraser mine is found geologically *far above* the Albert oil-coal *seam*. The importance of this fact can only be appreciated when we come to consider the theory of the origin of oil and common coals: the common coals being considered to have their origin in the destruction of land plants, and petroleum from marine plants. Time will not permit us to dwell longer on the coal-fields of Nova Scotia. I must, therefore, direct your attention to those of New Brunswick.

It will be unnecessary to say anything further on the common coal formation, as that has already been pretty well discussed in connexion with Nova Scotia coal. So I shall at once bring under your notice the Albert mine, in Albert county, New Brunswick—a substance at one time considered so peculiar, that one-half of the scientific world pronounced it coal, and again petroleum; and ended by saying, that it was neither one nor other, but "*Albertite.*" This locality was visited and carefully examined as late as 1863, by Professor Bailley, of Fredericton, New Brunswick, whose official report I shall refer to; it has also been visited, during the past summer, by Professor Hind, of Toronto, and it is necessary that his views should not be overlooked.

Professor Bailley first visited the Albert coal mines, and he thus speaks of them:—"So singular is their history—so lengthy are the reports and disputes concerning the true nature and position of the coal, and so extensive are their operations—that I cannot, however, for the general interest of the Province, refrain from referring to the extensive operations now conducted on the spot, as illustrating what a fair amount of energy and perseverance may do in overcoming apparently insurmountable difficulties in mining operations." The discovery was made in 1849; but, from the conflicting accounts given by geologists of the geological relations and chemical character of the coal, the capitalists of New Brunswick held

aloof from investing in what was pronounced an "uncertain and hazardous undertaking." Why it should have been so pronounced can be readily understood by reference to the trial, "Gesner *vs.* The Halifax Gas Co.," before Judge Wilmot, in 1852.

On referring to the Judge's minutes, it will be found that nearly the whole scientific world of America, and to some extent of England also, was employed in the determination of the vexed question. The witnesses for the Plaintiff swore:—That there was an anticlinal basis; that it was a vein, not a bed; an injected mass thrown up--strata distorted. No conglomerate above and below; no parallel strata of coal beds; no roof; no floor; no fire clay no coal fossils; *and lies beneath coal formation.* Amorphous; no vegetable structure; no cellular tissue; no lamination; and transmits light.

The Defendant's evidence was:—That there was *no* anticlinal axis; is a bed, not a vein; a deposit, and not an injected mass; strata parallel; has roof, fire clay, and coal fossils; and is just where it ought to be, in the coal series above the old red sandstone—and it would be a miracle if a coal bed were not there; has indications of vegetable structure; distinct laminations, &c., &c.

Then, as to its properties, the evidence of Plaintiff showed:—That it was fusible, melted by heat, and is the same after being melted as before; is soluble in coal-tar, in turpentine, in naphtha, and in other menstrua. The Defendant proved:—That it would not melt without changing its character, by throwing off gas. Every known variety of asphaltum melts at not exceeding 250, and, after cooling, can he melted again. Known asphaltum softens in the sun: sun has no effect on this. When apparently dissolved in coal-tar, it is not dissolved, but only held in mechanical suspension.

Hear, now, what Professor Bailley writes in 1863:—"I call the substance coal, although in the vicinity generally known by the name of shale . According to the statements of Dr. Robb, it is neither a shale nor a schist; but a true cannel coal, having all the characteristic pro-

perties of the substance to which that name is given in other localities. Openings have been made upon six different strata, and coal has been removed from them to the extent of 1,000 tons. I descended one of these openings, and found the coal to form a distinct stratum, about four feet in thickness, about ten feet from the surface. In descending, the bed rapidly increases in thickness and purity. The walls are composed of highly bituminous shale, emitting considerable odor. The shales and coal are perfectly conformable— the coal being a true *stratum*, and not a mere *deposit*, like some portions of the Albert coal."

"The unweathered coal is dark-black, and unlike the true Albertite, entirely lustreless. It admits, however, of a fine polish; and beautiful ornament objects might readily be cut or turned out of it, its color being little inferior to jet. It is not at all brittle, like Albert coal; but, on the contrary, rather tough, breaking with a large conchoidal fracture. It is nearly homogeneous in character; but occasionally contains irregular seams and masses of a brightly-shining and brilliant coal, apparently identical with true Albertite. Il is very hard and heavy, containing so much volatile matter as to allow of being readily ignited by the flame of a match or candle." Taking an average of the beds yet opened, their thickness would be from two to seven feet, and one of these beds is said to outcrop on the very summit of Baltimore mountain. These seams were at one time worked quite extensively, and distilled into oil, at the 'Caledonia works.' When Mr. Bailley visited them they were lying idle—probably from the same cause as led to the abandonment of the'Fraser mine,' near Albion mines, Pictou. "There can be no doubt," says Professor Bailley, "that the supply of coal in the vicinity of these oil works is very great, and its quality excellent." In a foot-note, the Professor says:—" At the time of the celebrated controversy upon the nature of the Albert coal, this fact was one of much importance. One party contended that the Albertite was a *mere deposit*— and hence not *coal*, but *asphalt*, the other, that it occurred in true strata of the coal measures, and was really a

highly bituminous coal. The latter is undoubtedly the correct view; yet Mr. Byers informs me that, while in some portions of the mines the coal is in beds, *conformable with the natural stratification; in others it is directly at right angles with it.*"

Returning again to the 'Albert mine,' at Hillsborough —and which is not to be confounded with the Caledonia oil-coal mine, from which it is about eight miles distant— we find that this mine, pronounced at first utterly valuless, is every day becoming more extensive. "It was at one time thought that the supply of coal would soon become exhausted; and hesitation was evinced as to the propriety of erecting expensive machinery over a mine which might at any moment cease to be of value. This uncertainty arose from the fact, that the distribution of the coal does not seem to follow the same laws which are generally observed in coal-mining districts; and frequenly when a level is being worked in a particular direction, the supply is found suddenly to fail. This is, of course, partly due to *faults;* but not entirely so, as in many cases the coal shows no conformability with the inclosing rock. It has been found, however, that, in such cases, beds may be readily found after a little drifting; and the proprietors have now no hesitation in urging on other works. The coal is of a perfectly uniform character wherever found, there being no division possible into various qualities; and all commands the same commercial value." A valuable lesson may be drawn from this: twelve years ago, everybody seemed unwilling to engage in the enterprise; now steam-engines (one of 400 horse-power) are at work, and in 1863 above 16,000 chaldrons were raised; and, according to Professor Hind, since the opening of the mine 170,000 tons have been raised, of the value of $10 per ton.

Professor Hind visited the Albert mine in October, 1864. He descended the mine to the depth of 750 feet. He thinks the relation of the Albertite to the adjacent rock *absolutely undefined;* and says: *sometimes*, but rarely, the strata are parallel to the veins; sometimes, and generally, inclined to it, at a greater or less angle; and

sometimes they butt end on; and not unfrequently, for some hundred feet, the strata are inclined, at different angles, to the vein at opposite sides. In fact, there are numerous dislocations,and in one dislocation the vein overlaps by many feet, and passes beyond the vein in another dislocation; and, from this fact alone, he believes that the *vein is not a bed.* He says, the evidence is now conclusive that the Albertite has been injected into an irregular fissure, in a liquid or soft state, under great pressure; so as not only to fill the fissure but to force itself into all the minor cracks in the rock subordinate to the main fissure. Professor Hind thinks that Professor Bailley, in asserting that it is coal, gives no reason for his opinion; and says;—"If it were coal, the mode of its occurence would be directly opposed to the views of geologists respecting the nature, origin and disposition of coal; and no sound advice could be given towards prosecuting a search for it in any direction." I may here remind you that, guided by the views of experienced geologists and practical miners, the agents of the General Mining Association selected their area south of the line of conglomerate, which was supposed to have cut off the coal seams to the north. The new adventurers, not having the fear of geologists before their eyes, discovered invaluable mines where geology had pronounced it was improbable they would be found.

Professor Hind believes Albertite to be an inspissated or hardened petroleum, and that its source lies below the Albert shales, among rocks of the Devonian age; though he admits that recent enquiries have established the fact that petroleum is not only very widely diffused, but is not, as was generally supposed, confined to rocks of a certain geological age—but that it occurs in rocks of all ages, and often in different mineral states or conditions. Naphtha, petroleum, rock oil, asphalt and mineral pitch, are all forms of bitumen.

In reference to the Albert or Baltimore shales, formerly worked by the 'Caledonia Oil Co.,' Professor Hind says, he counted, in an inch, upwards of a hundred of very thin alternate layers of stratified calcareous mud and bitumen,

and that this bitumen differed from the Albertite; and that they appeared to be the uppermost beds of the formation, and to contain a much larger amount of bitumen—a ton yielding from sixty to ninety gallons of crude oil; and they seem to have been formed in a shallow, tranquil, tidal estuary, into which springs of petroleum were discharging themselves. They must not be mistaken for the 'oil shale,' or 'oil coal,' of the Fraser mine, in Nova Scotia, which lies geologically far above the Albert shales, and occupies a position within the true coal measures; nor with the earthy bitumens which are found within the same geological limits. These oil-coals and earthy bitumens of the coal measures are thought by Dr. Dawson (than whom a better authority on this subject does not exist) to be "a water-soaked vegetable soil, completely bitumenized and twisted and slickensided, owing to the giving way, under pressure, of the roots and trunks under which it was interlaced." Mr. Henry Poole describes it as 'a substance of shaly aspect, laminated and slickensided, and the laminae much twisted, causing it to be distinguished as *curly* oil-coal. This bed varies from two to twenty inches in thickness. Under it is a bed called 'oil shale,' about two feet thick, and containing ganoid scales, lepidodendron and cordaites. Below this are argillaceous shales, abounding in cypris and spirorbis".

Professor Hind has no doubt that the Albertite is of Devonian or prior origin, and proceeds from rocks of the same age as those which yield the petroleum of Pennsylvania, Ohio and Canada; and says:—"Recently some remarkable discoveries of bitumens in many different stages, from petroleum to Albertite, have been made in the West India Island;" and he quotes Dr. Sterry Hunt, as follows:—"We do not know the precise conditions which, in certain strata, favor the production of petroleum, rather than of lignite or coal; but in the fermentation of sugar—to which we may compare the transformations of woody fibre—we find that, under different conditions, it may yield either alcohol and carbonic acid, or butyric and carbonic acids, with hydrogen. These ana-

logies furnish suggestions which may lead to a satisfactory explanation of the peculiar transformation by which, in certain sedimentary strata, organic matters have been converted into bitumen."

ProfessorHind also says:—"The altered character of the slates underlying the carboniferous system in the deep indent from Dorchester to Sussex, does not militate against the supposition, that the rocks to which these slates belong are the source of the petroleum; for it is well known that the metamorphosis produced by intrusive rock is generally confined to within a few yards of the intrusive mass". The petroleum springs in Albert and Westmoreland, which probably come from the underlying Devonian rocks, show that metamorphic action has not there changed in the least degree the character of the fluid; one of these springs being within five miles of the Albert mine, and within less than a mile of Albertite in place.

Albertite in position has been discovered in six different localities. Fifteen miles from Sussex Vale, in metamorphic slate. The Humboldt mine, in King's county, has a small vein running through metamorphic slate rocks In all other places, with this exception, the Albertite has been found in shales, sandstones, conglomerates, or limestones, of the lower carboniferous series. In the Humboldt mine no trace of shale is found; but the conglomerate and drift are impregnated and cemented together with bitumen.

British Columbia.

Coal crops out towards the coast of British Columbia, and has attracted some attention; and outcrops occur at several points of the eastern coast of Vancouver's Island; and the Hudson's Bay Company have made several attempts to turn this to profitable account. Works were commenced at Beaver Harbour in 1849; but were soon abandoned. Extensive seams of workable coal were subsequently discovered at Nanaimo, sixty miles north of Victoria, by Mr. Joseph McKay, in 1850. The same seam was found on Newscastle Island, and several other small

islands in the channel; and the Indians got out 200 tons. At Nanaimo, a shaft to the depth of fifty feet was sunk by regular miners, and a vein to the depth of seven feet thick was found lying on conglomerate. Eight miners were able to raise 120 tons per week. The pit is within a few yards of the water, and vessels drawing sixteen feet can anchor close to it. It is believed that coal may be found anywhere within a circumference of two miles, at a depth not exceeding sixty feet. About 6,000 tons have been raised—one-half by Indians. The great importance of this mine will be understood, when it is stated that not less than 200,000 tons of coal are required for the consumption of the Pacific steamboats; all of which had to be carried from Europe, or from the Albion mines, at Pictou, Nova Scotia.

CANADA.

I now come to the consideration of the question:—Has coal been discovered, or is it likely to be discovered, in Canada? And as reference has been so frequently made to Sir William Logan's opinions, and as he is undoubtedly the highest authority to whom we can appeal, I shall at once give Sir William's own words, as we have them under the head "coal," in Geology of Canada:—"The black bituminous shales or pyroschists of the Portage and Chemung groups, contain the remains of terrestrial plants, including a species of calamites, the flattened stems of which are sometimes found to be converted into coal." The Portage and Chemung group are of the higher members of the Devonian series; and their shales contain so much organic matter, as to take fire and burn with flame, after which the color is changed to brick-red. The higher portions of the Devonian, at Gaspé, abound, in some portions, with similar remains of carbonized plants; and in the lower part of the Gaspé sandstones *there is a well-defined seam of coal,* with carbonaceous shale, measuring three inches, and *having beneath it a bed of clay holding the roots of plants.* The section of these sandstones, given on page 394, shews that a terrestrial vegetation prevailed throughout the whole series; yet in no other part of the thickness of 7,000 feet was there observed a distinct

coal seam. The same upper Devonian strata, in the state of New York, contain in like manner thin seams of coal, which are of no economic importance. The rocks of the Bonaventure formation, in Gaspé—*the only representatives in Canada of the true coal-bearing series*—have afforded nothing but a few carbonized plants."

Under the head "Carbonaceous Minerals," viz, liquid and solid bitumen, carburetted hydrogen gas, bituminous shales, coal and graphite, Sir William says, that graphite is common to the Laurentian and the *altered* palaeozoic rocks; but the others are not met with in the unaltered palaeozoic strata alone. Bituminous matter in the form of petroleum, or mineral coal, appears in many places in the limestones of the Trenton group, from the extreme west to Gaspé Basin, where is found a layer of mineral pitch, or dried bitumen, an inch in thickness, lying beneath the surface of vegetable mould; while the soil from some distance to the east is saturated with petroleum. In other locaties is also found bitumen, in the form of asphalt; and at Petrolia, in Enniskillen, a bed, from four to two inches thick, was met with at the depth of ten feet in the clay, and reposing upon four feet of gravel. This bitumen is readily separable into thin layers, soft and flexible, and shewing on their surface remains of leaves and insects, which had become imbedded in the bitumen during its slow accumulation and solidification. Sir William likewise says, that at Kincardine and Bertie the soluble and liquid bitumen of the corals becomes replaced by an insoluble carbonaceous matter, infusible, the result of the slow oxidization of the petroleum. "These observations seem to throw light upon the origin of a black, combustible, coal-like matter, which occurs in many places in the Quebec group, and has in different localities been mistaken for coal. In the Quebec group, which is regarded as the equivalent of the calciferous formation, this substance has been observed at Quebec, Orleans Island, Pointe Levis, Sillery, St. Nicolas, Lotbinière, Drummondville, Acton, at Gaspé, and many other places.

The black shales at Bear Creek, near Kingston Mills,

Warwick, are inflammable, as in the case of similar shales of the Utica formation, "and have suggested to many persons the probability of beds of coal in the vicinity. Between these highest shales, however, and the horizon of the true coal measures in the southern peninsula of Michigan, where these measures are nearest, *there is wanting in Western Canada the remaining portion of the Portage and Chemung group.*" The epithet bituminous shales, or pyroschists, is not only applied to such as contain ready-formed bitumen, but to coals, shales, &c., which closely resemble bitumen in composition and properties, and from which petroleum can be produced by destructive distillation, as from lignite, peat, and even from wood; "and it is probable that some of the strata of the Quebec group, as well *the black shales at its base,* are *pyroschists;* for the altered rocks of this series are, in many places, very carbonaceous, and contain an admixture of plumbago ".

Bitumens have been supposed to owe their origin to the action of heat on coal, and similiar organic matters, by slow distillation; but it is objected that they occur in rocks in which there is no evidence of the action of heat, as at Bertie, where bitumen has been generated in the porous rocks, where it is now found; and "in the palaeozoic rocks of North America, bitumen must be derived, either from a marine vegetation, or the remains of marine animals, the lower forms of which differ but little in elementary composition from plants, and may as readily yield bitumen; and the transformation, by which organic matters may be converted into bitumen, does not differ very greatly from that which produces the more bituminous coals, to some of which certain of the asphaltums approach very closely in composition."

The bitumen of Trinidad is in the tertiary system, and associated with beds of lignite, and confined to particular strata once containing vegetable remains, which, according to Mr. Wall, have undergone a *special mineralization,* producing bituminous matter, instead of coal or lignite. Vegetable matter, whether of marine or terrestrial origin,

may be changed into petroleun, lignite, or coal; but it is very likely that an accumulation of molluscous animals, in certain strata, may from subaqueous decomposition, have given rise to the petroleum found in the coral rocks or palaeozoic limestones of Canada.

From these quotations, I do not think we would be justified in asserting that Sir William Logan has entertained the dogma that coal did not exist, and consequently could not be found, in Canada. True it is, he has said that the Bonaventure formation—which he considers the only representatives of the carboniferous systems in Canada—has only afforded a few carbonized plants; but discovery, even at Bonaventure, is not exhausted; and, from the facts which I have furnished in connexion with coal or coal-like substances in British North America, I do not think that Sir William would assert the impossibility of finding coal in Canada in quantity to be of economic value; though up to 1862—the date of the publication of the Geology of Canada—he might have thought it improbable.

I have now got pretty well through my subject; and trust I have arrived at the point from whence I can introduce, intelligently and intelligibly, the facts in connexion with the discovery of the coal-like substance at Pointe Levis, and which have led to the preparation of this paper.

On hearing that coal had been found at Fort No.3, Point Levis, I took the earliest opportunity of visiting the spot, as from the rumours that were abroad, I thought it not impossible that a discovery of some value had been made. I first went to the smithy, where I had been told it had been in use for the last few weeks. I saw in the coal bin about twelve bushels of what I at first thought was ordinary blacksmith's coal, but which the smith told me had been taken from the excavations for the fort. On a more close inspection I thought I had seen coal which really did not appear more genuine than that which I held in my hand, only it was much lighter than ordinary coal. The smith informed me that he had been using it, and nothing else, for the last twenty days,

and that it answered equally as well as the Newcastle coal, which he had previously used, but that it burnt away more rapidly. It was easily lit, and when covered up at twelve o'clock, only required the blast of the bellows to bring it into a glow again, when work was resumed after dinner, at 1 p.m. It left little ash, and formed a light clinker.

I then visited the works, where I met Mr. Gunn, the overseer, who obligingly accompanied me to the vein or stratum, or I should rather say veins, for they were three in number, running parallel to each other, within a width of four feet, and being *conformable* with the strata of shale. The seams were of unequal width, the centre, being the largest was in some parts between ten and twelve inches thick, narrowing, both upwards and downwards, to a couple of inches; the two lateral seams in no part exceeded three inches in width. The dip of the slaty shale, with which they lie conformably, is to the south, at an angle not exceeding nine degrees. The seams have been met with, more or less regularly, running towards the east, about forty-five feet. On a subsequent visit, I inspected another small seam, about two inches in width, situated about ninety yards eastward of the first discovered seams. I looked upon this carbonaceous matter as nearly answering the description which Sir William Logan has given of the "altered bitumen formerly found in many places of the Quebec group, and which was first described by Vaunuxem, in the Geology of New York, under the name of *anthracite,* as occurring in the calciferous formation, with crystals of bitter spar and quartz (our Cape diamonds) having been introduced into the cavity, in a liquid state, and subsequently hardened, showing, by its having conformed, that it was once in a plastic state. Very pulverulent, brittle, of a shining black, and, according to Vaunuxem, yielding but a small amount of ash. The volatile matter given off from different specimens varied much; that from Mountain Hill, Quebec, equalled 19.5 per cent.; that from the Island of Orleans 21.0; that from StFlavien 15.8; and another 24.5. But then Sir William also had said: "It fills fissures several inches

in diameter, so that it has been mistaken for coal, and attempts have been made to work it at Quebec and elsewhere. The mineral, however, is *never in true beds like coal,* but is always confined to veins and fissures, *which cut the strata,* shewing its deposition to have been posterior to the formation of the rocks."

Being anxious to have the opinion of Dr. Dawson, who, I was aware, was well acquainted with the Hillsborough mine, I forwarded him specimens, and gave expression to my opinion. Dr. Dawson very soon favoured me with a reply, which I was pleased to find accorded with my own expressed views. I give that portion of his letter bearing on the subject:—It is evidently the sort of altered bitumen which Sir William Logan refers to; and furnishes a curious illustration of the manner in which a substance resembling coal may originate in a quite different way from the ordinary one. It is likely that the deposit may be quite limited in extent; but this is not certain, and should not be taken for granted. The profitable working of the *Albertite* in New Brunswick, under circumstances very different from those of ordinary coal, shows that the most unlikely things are possible in such matters."

Analysis.—Two lumps of this coal, weighing 4 oz. 1 drm., taken indiscriminately from a keg, were put into a crucible, and placed in an open grate. When the crucible became red hot, one of the pieces softened, and swelled like a good bituminous coal; the other piece, which was harder and heavier, and evidently contained more earthy matter, swelled very little, but cracked and fell to pieces very slowly. The first piece gave out a large quantity of gas, the second less, which, mingling in the upper part of the crucible, broke into a flame, which burnt brilliantly for some minutes. The first piece left a small quantity of fine-ish cinericious ash; the second a large quantity of a brownish shaly matter. On weighing the solid product it was found to weigh 1 oz. and 15 drachms, having parted with 2½oz of gaseous matter, or nearly two-thirds of its original weight.

The crucible was then filled about one-third of its capacity with the finer part of the coal, which, when the crucible became red hot, swelled out, occupying another third, and for about half an hour yielding gas, which became ignited, and filled all the upper portion of the crucible. I here produce the cinder produced, which you will observe is light and porous, and has assumed the form of the interior of the crucible.

In conclusion, let me give the deductions which I have drawn from the various facts which I have submitted:—

First,—I think it has been proved that carboniferous matter pervades rocks not included in the carboniferous system of Geologists, and that, owing to special circumstances, the matter may be presented to us as Petroleum, Asphalt, Altered Bitumen, Lignite and Coal, varying from an earthy bituminous shale coal, to one so highly bituminous as to be with difficulty distinguished from pure asphalt.

Second,—That the productions of the mines of Europe, as well as Nova Scotia, which have generally been recognized as coals, owe their origin to the accumulation and decay, or change of *terrestrial* vegetable matter, from growth *in situ,* chiefly of sigillariae, calamites, poacites lepidodendron and ulodendron, as is so clearly illustrated in the section of the Joggins; or from drift formations, such as are now in progress, at the delta of the Mississippi, and other great rivers.

Third,—As a general rule, where coal owes its origin to terrestrial vegetable growth *in situ,* it is underlaid by a stigmaria clay; but that it may be generated without the stigmaria clay, as demonstrated by the two coal seams at the Joggins.

Fourth,—That oil coal, the production of terrestrial vegetation, may be generated in the true coal measures, as in the case of the "Fraser Oil Coal Mine," at Pictou, and the "Albert" deposit at Hillsborough, N.B., which Dr. Dawson pronounces "a fresh water formation of the *lower carboniferous period*", though Professor Hind views it as produced and injected from *beneath* the lower carboniferous series, from rocks of the Devonian, or prior origin.

Fifth,—That oil coal, the production of marine, vegetable, or animal organic remains, may occur in rocks of almost any geological age; and that it may present itself in fissures, *cutting* the strata below which it may have been generated, or that it may occur as a *horizontal* bed, originally poured out over the bottom of a lake, or of a shallow, tranquil, tidal, estuary, and hardened and covered up by sand and clay deposits of the carboniferous age.

Sixth,—That various instances cited show that petroleum generated from the destruction of marine, animal and vegetable life in the strata of the great palaeozic basin of British North America, at several different geological horizons, may, by oxidation and volatization, be slowly changed into asphalt, or mineral pitch, by a continuance of the same action, may be converted into a coal-like matter.*

Seventh,—That at the base of the lower silurian rocks in Canada (the Quebec group) a black, combustible, coal-like substance has been found in several places, and that comparing the conditions under which it has been discovered at Point Levis with those existing at Hillsborough, it is neither impossible nor improbable that *coal*, or a substance possessing many of its most valuable properties, may be yet found, in sufficient quantity to make it of great economic importance.

And Eighth,—That the facts cited in connection with the Hillsborough mine, in New Brunswick, and still more recently with the operations in the vicinity of the Albion mines, Pictou, N.S., show that the most eminent Geologists, and most experienced practical miners, may seriously err, and that it is not always safe to rely on their opinions and predictions in the prosecution of mining enterprise.

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*To enable us to form some idea of the enormous secretion of petroleum, it is only necessary to refer to the quantity yielded by the Oil Springs of North America, a discovery of yesterday. It is estimated that 500,000,000 gallons of crude oil have been produced, including 50,000,000 from the Springs of Canada.

NOTE.

SPECIMENS OF COAL EXHIBITED TO THE SOCIETY.

First:

1st. Brown.—Boghead; cannel coal.

2nd. Grey Black.—Lesmahago; cannel coal.

Qualities:—Hard, non-lustrous, highly bituminous, homogeneous, and admirable gas producers. They are found in the **Secondary** series, in the true coal measures, and their seams sometimes run into common bituminous coal; and fossils of sigillariae, and other plants of the true coal measures, are found in them. The "oil-coal" of the Fraser mine, at Pictou, Nova Scotia, and the "Albertite," at Hillsborough, New Brunswick, are similar to the lesmahago, and are situated in the true coal measures.

The Baron Von Buck considers the brown coals of Germany, of the miocene formation, to afford no intrinsic evidence of their age, as they are composed of fragments, or mere leaves, without flowers or fruit. The brown coal of Radabog, on the confines of Styria, is covered by strata containing **marine** shells, itself contains cones, leaves and wood of coniferous trees, and fragments of trees of the laurel and platainis tribes.

At Bonn and Cologne, the brown coal, or lignite, is of various ages—**eocene, miocene** and **pliocene**; and countains only one fossil, very like a cocoa-nut.

In 1851, the Duke of Argyle disscovered, in the Isle of Mull, in the **tertiary** strata, three leaf-beds, each from 1½ to 2½ feet thick, interstratified with volcanic tuff. The leaves belong to plants not now indigenous to the British Isles

Dr. Dawson discovered, at River Inhabitants, Nova Scotia, under the boulder clay, and superimposed on grey clay, a hardened peaty bed, nearly as hard as coal, but tougher and more earthy, containing many small roots and branches of coniferous trees, having a glossy appearance, approaching the brown coals in quality, and burning with a considerable flame.

Second:

1st. Dry cubical.

2nd. Fat cubical.

The ordinary domestic English and Scotch coals—composed of carbon, oxygen, and nitrogen, and the quality depending on their relative proportions.

Third:

Anthracites.—1st American Lehigh—black, hard and lustrous. In 1841, Sir C. Lyell saw at "Mauch Chunk." Lehigh, a seam between forty and fifty feet thick, from which coal was quarried in the open air—the overlying sandstone forty feet in thickness, having been removed bodily. This vast deposit, unmixed with earthy ingredients, Sir C. Lyell considers the result of the growth, during thousands of years, of trees and ferns after the manner of peat, subsequently condensed by pressure, and by the discharge of its hydrogen, oxygen, and other volatile ingredients.

2nd. Welch or steam anthracite—rather more bituminous than the Lehigh.

3rd. Scotch or blind anthracite—very similar to the Welch. The Scotch miners consider this coal to be bituminous coal, changed by the superimposition of trap; and in searching for anthracite always look first for the trap. The best anthracite has only from 6. to 11% ash; the less pure, as much as from 40. to 50. The characteristics of anthracite, whether splint, glance, hard, or culm, are great heat, little smoke, and little ash, on combustion.

Fourth:

Pyritous coal from Glace Bay, Cape Breton.

Fifth:

Coal or Altered Bitumen from the Palaeozoic rocks of Point Levi

N.B.—The Oolitic coal at Brora, Sutherlandshire, Scotland, affords the thickest stratum of pure vegetable matter hitherto discovered in any secondary rock in Britain. One seam of good quality, 3½ feet thick, has been worked, and there are resting upon it several feet more of pyritous coal, of which I have seen cart loads in square blocks, which shone in the sun like burnished coal. Sir C. Lyell points out that in this neighbourhood common hypogene granite, in contact with Oolitic strata, has been elevated bodily, at a period subsequent to the depositions of these strata. The pyritous coals are all liable to spontaneous combustion.

Sir C. Lyell also describes an Oolitic coal near Richmond, Virginia, which occurs in a depression of granites, extending twenty-six miles, north and south, and four to twelve, east and west. The measure is composed of grits, sandstones. and shales, exactly resembling those of primary date, in America and Europe, which they surpass in richness and thickness of coal seams. Sir C. descended a shaft 800 feet, entered a chamber 40 feet high, formed by the removal of pure bituminous coal, exactly similar to the finest Neweastle: and it is worthy of remark that it has been derived from pure, zanites, calamites and equisetums, very distinct specifically, and in part generically, from those which contributed to the ancient palaeozoic coal.

Flora of the coal period.—About 500 species have been discovered; among them 250 ferns—the larger portion of European existing ferns—only some sixty in number being represented; but some are decidedly arborescent. Of the lepidodendron—a coniferous tree from forty to fifty feet in height—there are many species. Of sigillariae, 350 species, some of which were seventy feet in height. Also, numerous calamites, poacites, astrophylites, and equisetums.

Shells, &c.—Cypris, modiola, spirorbis, of fresh water. And, in England, fresh and marine shells intermingled, limuli, cytheres, micoconchus; several fishes of genus megalocthys and holoptychlus. Ont or more species of scorpions; two beetles of the family cucurlionidae; an insect resembling the genus corydalis, and another the phasmrdae, in Coalbrookdale. Several specimens of cockroach, and the wing of a cricket, in the coal of Wetting, in Westphalia; and twelve species of insects— blattinas, neuroptera, scarabaeus, a grasshopper or locust, gryllacris, and several white ants or termites, in the nodular iron-clay of Soarbouck, near Treves. Lately, also, a spider has been found in the coal seams of the palaeozoic period.

Paper III.—ON THE HISTORY OF LITERATURE.

By JAMES M. LeMOINE, Esq., Vice-President.

(Read before the Society, Dec. 6th, 1865.)

Monsieur le Président,

Invité à faire, ce soir, sans avoir eu le temps de m'y préparer convenablement, les frais d'une *Causerie Littéraire*, j'ai cru pouvoir faciliter ma tache en choisissant un sujet qui va droit au cœur de la majorité de ceux qui m'entourent. Jetant un coup d'oeil sur le passé, je suis allé remuer les souvenirs littéraires qui nous sont communs à nous tous, membres de cette société. Je suis entré dans le champ des lettres y glaner quelques épis dorés; puis, pour me servir d'une figure dans le goût de notre collègue, M. Anderson, notre infatigable botaniste, je suis allé herboriser parmi les mousses et les fougères de l'Hélicon, pour y ramasser quelques modestes fleurs des bois, mais des plus aromatiques: fleurs et épis, j'ai beaucoup de plaisir à vous en tresser une guirlande et à la déposer à vos pieds.

C'est l'éloge des lettres que j'ai à vous présenter. En faire l'histoire, n'est-ce pas en faire l'éloge? Le mandat est attrayant: pour moi, c'est un travail d'amour, car, avec plusieurs de ceux dont la présence m'honore ce soir, n'ai-je pas, pour employer un mot pittoresque de Montaigne, "cotoyé les routes gazonnées et doux fleurantes," de la science dans le vieux Lycée à deux pas d'ici, que son illustre fondateur, l'évêque de Petrée, aurait bien de la peine à reconnaitre, s'il lui était donné de revisiter ces lieux, tant il s'est agrandi;—l'arbuste de 1663 est maintenant un chêne majestueux, portant fruits, plein de sève, et dont l'ombrage attend des générations à naître.

Oui, M. le président, les lettres ont obtenu le culte, ont conquis les hommages de toutes les nations: c'est leur patrimoine, leur gloire, leur propriété inaliénable. Re-

montez la chaine des temps: à chaque pas, vous les trouvez les amies de l'humanité; partout des autels à Minerve, bienfaisante divinité descendue sur la terre, radieuse et vivace. Athènes, la savante, bâtit le Parthenon à l'entrée du Pirée, temple aussi superbe que ceux où se célébraient les mystères de Jupiter Tonnant: ainsi chez les Grecs, ces fils ainés de la science, le culte des muses allait de pair avec celui du maitre des Dieux. Les Romains, souverains du monde entier, envoyaient leur jeunesse la plus illustre à Athènes leur conquête,—hommage éclatant que ces farouches conquérants rendirent aux arts pacifiques.

Si je ne craignais de vous ennuyer d'une longue nomenclature, j'évoquerais ici les noms de tous les hommes illustres qui ont puisé dans la lecture des poêtes le sentiment de l'héroïsme qui a dicté leurs actions. Qui, par exemple, a jamais douté que la lecture de Plutarque ne fût propre à inspirer la fermeté dans les revers et l'amour passionné de la gloire. Quoique l'on donne aux sciences et aux arts pour symbole la branche d'olivier; quoique l'on tienne que rien n'est plus favorable à la culture des lettres que la paix, ce serait peut-être encore une question assez curieuse à examiner, de savoir si plusieurs des fameux généraux qui ont étonné les nations du bruit de leurs armes, n'ont pas acquis cet empire autant par leur éloquence à la tribune que par leur génie militaire. A ces mots de génie et de victoire, il nous semble voir surgir devant nous les grandes ombres des Péricles, des César, des Mahomet, des Cromwell, des Napoléon. Péricles, cet éloquent capitaine, qui comptait ses victoires par ses batailles; César, ce foudre de la puissance romaine qui combattait avec la même force qu'il écrivait, aussi fameux par ses *Commentaires* que par la conquête des Gaules et de la Germanie; Mahomet, ce terrible fanatique qui armé du glaive et de la parole, bouleversa la moitié de l'univers; Cromwell, qui en discourant du Pentateuque, des synodes et des écritures, forgeait un joug de fer à une nation jusqu'alors impatiente de tout frein; Napoléon, ce colosse des temps modernes, qui promenait ses aigles victorieuses "des bords du Tanais au sommet du Cédar," ce grand ravageur des

nations qui distribuait des sceptres et des couronnes comme l'on donne des jouets à des enfants; l'homme de mystère, dont un mot enflammait l'ardeur de ses braves, ces invincibles grognards de la vieille garde. Veut-on savoir ce que pensait des lettres un des plus beaux génies de l'antiquité; eh bien! voici comme s'exprime le père de l'éloquence latine. C'est un éloge mille fois cité et qui néanmoins a toujours eu autant d'admirateurs que d'auditeurs. De plus, pour plusieurs d'entre nous, c'est une réminiscence de collège et souvent ce ne sont pas les moins agréables. *Forsan olim meminisse juvabit.*

"Quand, dit il, on n'envisagerait dans ces études que le plaisir, vous n'en regarderiez pas moins, je pense, cette récréation de l'esprit comme la plus digne d'un homme et d'un citoyen. En effet, les autres amusements ne sont ni de toutes les heures, ni de tous les âges, ni de tous les lieux. Mais les lettres nourrissent la jeunesse, réjouissent les vieillards; dans la prospérité, elles nous servent d'ornement; dans l'adversité, elles nous offrent un asile et une consolation. Elles nous recréent chez nous et ne nous gênent pas au dehors. Elles passent la nuit avec nous; elles voyagent avec nous; elles nous suivent à la campagne. Et quand nous ne pourrions y atteindre, ni goûter par nous-mêmes la douceur des lettres, nous devrions encore les admirer dans les autres."

Ou bien dans l'harmonieux idiôme d'André Chenier:

> "Beaux arts, O de la vie aimables enchanteurs
> Des plus sombres ennuis, riants consolateurs
> Amis sûrs dans la peine et constantes maîtresses
> Dont l'or n'achète pas l'amour et les caresses."

Les lettres ont donc de tout temps fait les délices du genre humain. L'adversité y a puisé du soulagement; la prospérité, l'amusement; vraie fontaine de Jouvence, véritable Lethée, elles sont ces fleuves mystérieux dont l'onde en rajeunissant, en ravivant la pensée, possède en outre le don de faire perdre le souvenir de ce que la

vie a souvent d'amer et de sombre. Que de grands génies aux prises avec l'infortune, ont choisi les lettres pour consolateurs et pour confidents dans la solitude de leurs pensées? Silvio Pellico, au fond du noir donjon où les autorités de Venise l'avaient relégué, crayonnait ces pages éloquentes qui l'ont immortalisé. Socrates, le Tasse, Cervantes accordèrent leur lyre au son de leurs chaines et sûrent en tirer des accents jusqu'alors inconnus.

Galilée, "coupable d'avoir eu trop tôt raison," Galilée, dans les fers, prouvait au monde la royauté du génie qui tôt ou tard doit triompher de toutes les combinaisons des hommes: car le génie est roi et doit régner.

"Le Nil a vu sur ces rivages
De noirs habitants des déserts
Insulter par leurs cris sauvages
L'astre éclatant de l'univers:
Cris impuissants! Fureur bizarre!
Tandis que ces monstres barbares,
Poussaient d'insolentes clameurs,
Le dieu poursuivant sa carrière
Versait des torrents de lumière
Sur ses obscurs blasphémateurs."

Je n'ai que faire de vous rappeler le nom de l'auteur de ces magnifiques vers; les voix du passé vous le redisent assez.

Homère, Milton,Ossian, ces illustres aveugles mendiaient la gloire, une lyre au bras, dans les villes de l'Ionie, d'Albion--sur les sommets de Morven. Sachons gré à Apollon d'avoir souvent comblé de ses faveurs les plus signalées, ceux que le monde poursuivait de ses dédains et de ses injustes colères. La destinée de bien des poêtes, nous arrache à regret un pénible aveu: l'homme a souvent par ses injustices, causé le retour de ces émanations divines,—hâté leur rentrée dans leur céleste patrie, comme si leur séjour ici bas était une censure vivante, intolérable de ses injustices. Répétons ensemble pour la millième fois, les paroles suprêmes d'un jeune barde moissonné au prin-

temps de la vie et dont le trépas sera un stigmate ineffacable au front du siècle qui le méconnût:—

Au banquet de la vie, infortuné convive
J'apparus un jour et je meurs.
Je meurs, et sur ma tombe où lentement j'arrive,
Nul ne viendra verser des pleurs.
Salut, champs que j'aimais et vous douce verdure
Et vous riant exil des bois!
Ciel, pavillon de l'homme, admirable nature,
Salut pour la dernière fois!
Oh! puisse voir longtemps votre beauté sacrée,
Tant d'amis sourds à mes adieux
Qu'ils meurent pleins de jours! que leur mort soit pleurée
Qu'un ami leur ferme les yeux!

J'ai dit que les lettres servaient d'ornements, devenaient jouissance dans la prospérité: voyez-les patronées par Auguste, Charlemagne, Alfred le Grand, Louis XIV, Jacques I., le grand Frédéric, de Prusse.

En vain un homme à brillants paradoxes a-t-il prétendu que le culte des lettres et des arts n'était propre qu'à amollir, à corrompre l'esprit humain; la gloire même de Rousseau a démenti ses théories. On sait de plus que ses convictions intimes sur ce point étaient en désaccord avec ses écrits.

Jean-Jacques allant un jour de Paris à Génève, jeta par hasard les yeux sur un papier-nouvelles qui se trouvait dans la diligence et y lut un paragraphe annonçant que l'académie mettait au concours la thèse suivante: *"Les lettres ont-elles contribué à exalter ou à corrompre les peuples?"* Rousseau exprima de suite le désir de concourir: un savant qui se trouvait à ses côtés, lui demanda s'il se prononcerait en faveur des lettres? Mais sans doute, lui dit Rousseau.—"Vous auriez tort, jeune homme, répliqua le gros bonnet. Si vous voulez vous distinguer, prenez l'autre côté de la question; car à coup sûr, personne n'osera nier que la culture des lettrers ne soit favorable à la gloire des nations ".—Rousseau adopta l'avis, ce qui nous a valu le trop fameux discours sur les lettres que vous connaissez tous. Ce fait nous est garanti par Bernardin de Saint-Pierre. Le culte rendu aux beaux arts, et le

degré de splendeur de la littérature, a de tout temps servi à déterminer le point de civilisation et la puissance des divers peuples: "La littérature est l'expression de la société." On peut donc affirmer que la gloire des nations et le culte des muses sont sœurs. Les siècles héroïques ont fait naître leur Homère, leur Pindar, comme si la crainte de descendre tout entiers dans la tombe, les engageaient à laisser un barde pour répéter l'écho de leurs hauts faits aux générations futures.

Heureux les poëtes qui avaient pour s'inspirer les exploits d'un Achille, la colère d'un Ajax, la beauté d'une Hélène, et espérons qu'il en reste encore des copies—mais mille fois plus fortunées les nations qui avaient à leur solde ces fils du génie, dont la parole ailée devait planer pardessus tous les âges. Aucun pays ne rendit un culte plus solennel aux belles-lettres que la Grèce; on y créa les jeux Olympiques; on y décernait publiquement des récompenses aux vainqueurs. Ce n'étaient pas les couronnes les moins brillantes que celles réservées aux poëtes et aux orateurs. Le burin de l'histoire et les cothurnes de la tragédie, étaient non moins en honneur que le ceste d'Entelle ou la massue d'Hercule. Plus tard, Rome qui avait remporté la palme dans tous les genres de gloire, se passionna bientôt pour les lettres; l'Ionie lui avait soufflé sur l'haleine de ses zéphirs des velléités de gloire littéraire. L'art d'écrire, d'abord inculte, se perfectionna rapidement; Ovide, Horace, Tibule, Virgile, Lucain, encouragés par la considération et les récompenses qui couronnaient le mérite littéraire, tracèrent à leurs contemporains étonnés des tableaux enchanteurs des grandeurs de Rome et divinisèrent pour ainsi dire, dans leurs chants harmonieux, jusqu'aux crimes qui avaient signalé la fondation du berceau de Romulus.

C'était à qui célébrerait le plus dignement le peuple-roi. Le maître de Rome offrait au prince de ses poëtes une pièce d'or pour chaque vers de l'éloge de Marcellus. Si la poésie était digne de Virgile, le présent était digne d'Auguste. Rappellerai-je les pages éloquentes que la postérité doit à Tite-Live, Cicéron, Tacite, Sénèque, ces écrivains qui sont comme les génies-mère où la pensée humai-

ne, selon l'expression de Sainte Beuve "se ravitaille, s'allaite depuis plusieurs siècles" Quelles esquises de mœurs dans Tite-Live! Tacite à qui les muses semblent avoir confié les rayons de l'histoire, tout en peignant les froides cruautés des maitres du monde romain, n'a-t-il pas donné aux tyrans des leçons qui les feront trembler éternellement? A ce propos un moderne disait que nul oppresseur du genre humain ne devait voir les œuvres de Tacite dans sa bibliothèque sans frémir de terreur. Comment mieux peindre l'aigle du Forum romain que de le présenter à vos regards le jour de la découverte de la conjuration de Catilina. Que l'on se figure siégeant dans un vaste temple l'assemblée des chevaliers et des sénateurs romains, dans toute la splendeur patricienne, vêtus de leurs majestueuses toges, et assis dans leurs chaises currules, discutant le sort du monde, leur tributaire, leur conquête. Ici vous reconnaissez à sa pourpre resplendissante,un proconsul accouru du fond de la Numidie; là, c'est le commandant des Gaules. Voyez à côté de cet illustre vétéran qui a blanchi à la tête des légions romaines, voyez le censeur de son siècle, Caton, appuyé sur le piédestal de la statue de Jupiter: plus loin, vous distinguez le petit fils de Scipion, dont le front rayonne de gloire et d'espérance, — il a déjà été trois fois consul. Un hérault vient annoncer la nouvelle d'une victoire: un autre, la défection d'une province. Tout est grave, tout est majestueux dans cet aréopage; on sent que ce sont les maitres du monde qui règlent la destinée des peuples. Bientôt les figures s'assombrissent; on se parle à voix basse, comme si quelqu'incident inattendu fixait l'attention générale: Catilina en effet venait de prendre son siège au milieu des félicitations de Céthegus, Lentulus, Pison.

Tout à coup du sein d'un groupe de personnages consulaires s'élance aux rostres, le premier magistrat de Rome. Son front large se comprime sous l'effort de la colère ou du dédain: enfin, rompant le silence, le salut de la patrie lui arrache ces mâles accents: sa voix tonne, et les coupables, où sont-ils?

"Jusques à quand abuseras-tu de notre patience, Catilina! Combien de temps encore serons-nous le jouet de

ta fureur? jusqu'où s'emportera ton audace effrénée? Quoi! ni la garde qui veille la nuit sur le Mont Palatin, ni les forces répandues dans toute la ville, ni la consternation du peuple, ni le concours de tous les bons citoyens, ni le lieu fortifié choisi pour cette assemblée, ni les regards indignés de tous les sénateurs: rien n'a pu t'ébranler. Tu ne vois pas que tes projets sont découverts? que ta conjuration est ici environnée de témoins , enchainée de toutes parts? Penses-tu qu'aucun de nous ignore ce que tu a fait la nuit dernière et celle qui l'a précédée? dans quelle maison tu t'es rendu, quels complices tu as réunis; quelles résolutions tu as prises? O temps! O moeurs! tous ces complots, le sénat les connait, le consul les voit et Catilina vit encore! Il vit: que dis-je? Il vient au sénat; il est admis aux conseils de la république: il choisit parmi nous et marque de l'oeil ceux qu'il veut immoler. Et nous, hommes pleins de courage, nous croyons faire assez pour la patrie, si nous évitons sa fureur et ses poignards."

Concevez la terreur de ces forcenés confrontés face à face avec leur accusateur et leur juge. Catilina, nous dit l'histoire, malgré toute son audace et sa férocité, quitta le sénat les traits altérés et murmurant contre la république et le consul les menaces les plus sinistres. L'art de la parole employé pour sauvegarder ses concitoyens du pillage et du meurtre, quel plus noble triomphe! Les annales des lettres fourmillent de traits semblables. Le temps ne permet pas de vous entretenir bien au long des écrivains de Rome: il faut avoir vécu en intime avec les classiques latins pour se faire une idée de tout ce qu'il y a de suave et d'attrayant dans les poesies de Catulle,* de Ti-

*Je vois dans mon auditoire un de nos poëtes les plus connus; me permettra-il, à propos de Catulle de lui demander de rendre en français la gracieuse invocation d'Adrien à son âme avant de mourir?

Animula! vagula, blandula,
Hospes, comesque corporis,
Quæ nune abibis in loca.
Pallidula, rigida, nudula,
Nec, ut soles, dobis jocos?

[*Le poëte interpellé y a répondu et quinze autres aussi. Voir l'Appendice.*]

bule, d'Ovide et dans les pastorales de Virgile: les images en sont fraiches comme la rosée de l'aurore. Catulle, le poëte des amoureux: Ovide, ce mélancolique rêveur: Tibule qui soupirait des chants d'une incomparable harmonie: Virgile également heureux soit qu'il retrace les mœurs pastorales,, qu'il peint les fureurs sécrètes de l'amour non assouvi, tel que la Reine de Carthage ou qu'il embouche la trompette épique pour célébrer les fastes des Romains. Quelle mosaïque littéraire que ce groupe d'esprits choisis!

En quittant ces aigles de l'horizon romain, le tableau s'assombrit avec la décadence de sa gloire. Le génie et la gloire marchent de pair: pour les peuples, Pallas et Minerve sont la même divinité sous des noms différents. Suivez les siècles et vous apercevrez les sciences délaissées, se refugiant sous la mitre d'un évêque ou se nourrissant de la sève du christianisme naissant. Les diverses églises de Rome, d'Antioche, d'Alexandrie, fournirent bientôt au monde des écrivains, des orateurs, des philosophes dont les écrits le disputaient à ce que la Grèce et l'Italie antiques avaient de plus parfait.

Ce n'était pas à tort que St. Jean Chrysostôme était surnommé "Bouche d'or." Ses discours, ses homélies, étincellent de beautés d'un ordre supérieur. Et qui mieux que l'évêque d'Hippone sut l'art d'émouvoir l'homme en lui dévoilant le secret de son être, lui au printemps de la vie, jeune seigneur Grec, qui après avoir épuisé avec les *roués* d'Athènes, la coupe des plaisirs à la mode, se désillusionna tout-à-coup et étonna ses anciens amis par la pureté de ses mœurs et par son éloquence de feu, autant qu'il les avait scandalisés par les désordres de ses premières années. C'est lui-même qui nous l'apprend dans ses Confessions.

Que dire d'un Origène, d'un Tertullien, ces puissants génies dont l'éclat à travers quinze siècles nous frappe comme les phares de la primitive église. On ne saurait nier que les œuvres des pères de l'église du troisième et du quatrième siècles ne soient des monuments d'érudition loin de mériter de la part des gens du monde l'oubli où la

frivolité du jour voudrait les reléguer. Ce sont, au dire de Sainte-Beuve, "de vieux chênes dont les troncs contiennent des trésors de miel." Ceux qui désirent approfon dir cette branche de l'histoire des lettres trouveront dans le grand ouvrage de M. Ampére d'amples détails. On sait que ce savant académicien visitait naguère nos bords.

Chassée peu à peu par les barbares de l'asile que la religion chrétienne lui avait donné, la littérature erra proscrite par le monde. Pauvre exilée que la guerre éloignait de ses foyers, Minerve, un voile funèbre sur le front, quittait les rives classiques de l'Italie pour remonter à sa céleste patrie, attendant des jours plus prospères pour laisser jaillir sur la pauvre humanité quelques rares rayons.

Pendant le silence des nuits, on a pu entendre de temps à autre un faible écho de la Déité. Tantôt du sein d'un cloitre, mêlées aux ardeurs célestes, s'exhalaient des étincelles d'une passion mal étreinte, c'était Héloise pleurant Abélard. . Tantôt une plainte mélodieuse se répétait sur les rivages de l'Ausonie: c'était Pétrarque, s'efforçant de toucher le cœur de Laure plus dure que les rochers de la Thrace. Heureuse insensibilité qui nous a valu de semblables trésors littéraires!

Entassés tout poudreux dans la niche d'un monastère gothique, Homère, Virgile, Horace, attendaient en silence que Guttemburg sonnât le *rappel;* annonçat le trépas de l'ignorance, la chûte des ténèbres: alors devaient-ils, nouveaux Phœnix, renaitre de leur cendres . Horace, n'avait pas eu tort de formuler son fameux prôtêt *Non omnis moriar:* non il devait survivre et la meilleure partie de lui-même a survécu:

> "*Non omnis moriar, multaque pars mei*
> *Vitabit Libitinam,* . . . . . ."

On l'a dit: "La gloire, c'est la dette de l'humanité envers le génie."

Pendant toute cette époque voisine de la conquête des Normands, la littérature était entre les mains des trouvères, des troubadours, des menestrels et se composait de lais, de ballades, de contes, de chansons, de fabliaux plus ou moins grossiers; les princes mêmes se faisaient un mé-

rite de griffonner en mauvais saxon ou en Normand baroque leurs exploits ou leurs amours. Robert Courte-Heuse, duc de Normandie, enfermé dans le Château de Cardif, adressait aux vagues qui battaient le pied de sa prison, ses plaintes en vers gallois. "Richard Cœur de Lion, fut couronné comme troubadour; il avait composé en langue romane un sirvente sur sa captivité à Worms. Il y célébrait sa naissance et se prétendait fils, non d'Eléonore de Guienne, mais de la Princesse d'Antioche, trouvée en pleine mer, sur un vaisseau tout d'or, dont les cordages étaient de soie blanche."

La littérature de ces temps reculés n'était qu'un tissu de fables plus ou moins ridicules où l'invraisemblable le disputait au merveilleux; une pature littéraire dont la chevalerie, la galanterie et la religion servaient de potage, d'entremets et de pièce de résistance.

Mais n'aurai-je pas un mot à dire en passant du moyen âge: de cette ère de chevalerie où le roi "S'honorait d'être gentilhomme avant de s'énorgueillir du titre de monarque."*

Qui en sera le type, le symbole? Sera-ce le jeune châtelain, avec l'or, le faucon et le cor de chasse, précédé de la harpe du troubadour et de la cithare du romancier,—et visitant les pays lointains et les cours étrangères pour se rendre chevalier parfait? Sera-ce le généreux paladin qui fuit son castel où il menait vie noble et joyeuse et où il a laissé sa femme et ses enfants à la garde de Dieu pour aller chevauchant en Palestine, où la mort l'attend, à la tête de ses cohortes qu'il va lancer au cri de guerre "*Dieu le vent!*" et "*Montjoie St.-Denis!*" Sera-ce cette noblesse féodale qui après avoir "édifié les églises, doté les abbayes, concédé aux serfs de ses domaines des actes d'affranchissement et aux bourgs des chartes de communauté et par là enfante, le peuple qui un jour dévorera sa mère:"† cette noblesse dis-je, que l'on retrouve partout où la patrie est en danger, à Bouvines, à Crecy, à Poitiers, à Azincourt, au premier rang, où la mort, comme le moissonneur qui

* Châteaubriand.

† Eysenbach.

abat sa récolte, fauche sans se lasser jamais: cette noblesse qui arrose le sol du sang le plus généreux de la France? ou bien assombrissant les couleurs, vous montrerai-je comme types de la féodalité ces fiers et luxurieux barons, vampires du peuple, écrasant de leur talon de fer leur vassaux, qu'ils traitent comme une vile tourbe taillable, corvéable à merci et sans merci, ce même peuple qu'un conquérant fameux, l'élu des masses appelait "de la chair à canons," ce peuple enfin qui devait se lever dans sa force et faire main-base sur les dix huit siècles d'oppression qui pesaient sur lui. Mais, M. le président, cette digression me mène trop loin, et quelque soit le portrait que vous désiriez avoir de la féodalité, je vous assure qu'avant de condamner cette noblesse française à laquelle le Canada, notre patrie, doit tant, j'opinerai de grand cœur pour "un plus ample informé." Revenons à cette burlesque littérature du moyen âge:

"Les *miracles* et les *mystères*, remarque un écrivain célèbre, furent une partie essentielle de la littérature de tous les pays chrétiens depuis le dixième jusqu'au quatorzième siècle. Geoffroi, abbé de Saint-Alban, composa le miracle de *Sainte-Catherine* c'est le premier drame écrit en français dont jusqu'ici on ait connaissance. L'auteur le fit jouer dans une église en 1110 et emprunta pour revêtir les acteurs, les chapes de l'abbaye de Saint-Alban. Le clergé encourageait ces spectacles comme un enseignement public de l'histoire du christianisme: le théâtre grec eut la même origine religieuse. Les *miracles et les mystères* se donnaient en plein jour, dans les églises, dans les cours des palais de justice, aux carrefours des villes, dans les cimetières: ils étaient annoncés en chaire par le prédicateur; souvent un abbé ou un évêque y présidait la crosse à la main. Le tout finissait quelque fois par des combats d'animaux, des joûtes, des luttes, des dances et des courses. Clément VI accorda mille ans d'indulgence aux personnes pieuses qui suivraient le cours des Pièces Saintes à Chester." Ces spectacles étaient représentés pendant le carême: ils commençaient par la création et finissaient par le jugement dernier.

L'auteur du *Génie du Christianisme* dont ces détails sont empruntés les relate sur l'autorité de Warton, l'historien. Ces mœurs vous semblent étranges; sans doute aussi rédicules que nos us et coutumes d'aujourd'hui l'eussent semblé aux hommes du bon *vieux temps*. L'abbé de la Rue remarque que dans ces temps-là les dames n'étaient pas suffisamment respectées et cite une satyre faite par un abbé intitulée "*Les Noces des Filles du Diable,*" où le beau sexe n'était pas ménagé. Les médecins, les riches, les chanoines avaient aussi leur lot dans les *Litanies des Vilains*, le *Credo* du *Juif*, le *Pater Noster* des *Gourmands*. Comme vous voyez, le mélange et du sacré et du profane est peu propre à vous inspirer du respect pour le *bon vieux temps*.

Permettez que je vous cite une des moralités (c'est le nom que portaient ces drames) des plus en renom à cette époque. Elle porte pour titre: "*Condamnation du festin, à la louange de la diète et de la sobriété, pour l'avantage du corps humain,*" vers la fin on fait le procès aux sieurs Festin et Souper devant le Juge en chef *Expérience*. Voici le délit: Festin et Souper sont accusés d'avoir causé la mort à plusieurs personnes. Le juge *Expérience*, après avoir entendu les parties par leurs avocats sans doute, (car que deviendrait le monde sans avocats,) condamna Festin à la potence: le bourreau, c'est la Diète. Festin ayant à son côté son confesseur, commence publiquement une confession générale de toutes les énormités, de toutes les indigestions, de toutes les apoplexies, et de toutes les migraines qu'il a causées: le récit en est si affreux que le bourreau scandalisé lui met la corde au col et le pend bel et bien. Dans ces temps-là, voyez-vous, Beccaria n'avait pas encore écrit sur l'abolition de la peine de mort. Voilà pour Festin. Quant à Souper, la Cour le condamne, vû la nature de l'offense à porter du plomb dans une main pour l'empêcher de mettre trop de plats sur la table à la fois et le force à donner caution de ne jamais se trouver sur le passage du Diner: de plus, à ne se mettre en route que six heures après lui.

On trouve, comme vous voyez, un certain sel répandu

dans ces pièces malgré leur incohérence; nos ancêtres étaient donc plus spirituels que leurs détracteurs ne le prétendent: mais paix à leurs cendres: point de médisance des absents.

Je vous ferai grâce de la troupe d'écrivailleurs de cette époque. Quelques esprits supérieurs ont néanmoins laissé des traces durables de leur passage. En Angleterre, Chaucer, Froissart, Bower: en Italie, Bocace, le Dante, Petrarque, plus tard le Tasse: en France, Ronsard, le jovial Curé de Meudon, Montaigne, Voiture présidaient à la renaissance des lettres. Leurs essais se ressentent généralement de l'enfance de l'art: la pensée humaine était encore au maillot. Il fallait les puissants génies du siècle de Louis le Grand pour déblayer les ruines du passé, et pour émanciper l'intelligence des peuples. M. le Président, je m'aperçois que j'ai déjà outrepassé les bornes que je m'étais prescrites. A une autre soirée, de vous entretenir des écrivains du grand siècle.

APPENDICE.

L'appel de M. LeMoine donna lieu à un petit tournoi littéraire où quinze jouteurs prirent part. M. P. Lemay, en tête:—

" Animula! vagula, blandula,
Hospes, comesque corporis,
Quæ nunc abibis in loca.
Pallidula, rigida, nudula,
Nec, ut soles, dabis jocos?"

" Noble compagne de mon corps,
Ame douce et mystérieuse,
Qui t'enfuis au séjour des morts,
Comme ici seras-tu joyeuse,
Ou seule avec de vains remords."

"P. LEMAY."

Un Anglais du Haut Canada:

" Douce compagne, hôtesse de mon corps,
Mon âme! délaissée et pâle et nue,
Ou vas-tu errante à perte de vue?
Dans quels séjours de tristesse et de mort?
Ton rire accoutumé, tes traits d'esprit;
Cesseront-ils, quand tu n'es plus ici?"

"W. KIRBY."

" Niagara, Haut Canada, 26 Dec., 1865."

"Ma petite âme vagabonde,
Hôte et compagne de mon corps,
Qui va partir pour l'autre monde,
Comment seras-tu chez les morts?
Avec ta gaité si constante?
Ou pâle et nue, et grelottante?"

"C. D."

"Kamouraska, Janvier, 1866."

"Toi, de mon pauvre corps hôtesse vagabonde,
Toi, sa douce compagne, aux bons, aux mauvais jours?
Mon âme, tu t'envoles vers un autre monde!
Que vas-tu devenir, en ces lointains séjours?
Seras-tu—pâle, délaissée,
Sans espoir et sans avenir,
Captive, pour toujours, d'une sombre pensée?
Ou de notre bon temps auras-tu souvenir?"

"EMANUEL BLAIN DE ST. AUBIN."

"Petite âme! compagne errante,
Aimable hôtesse de mon corps,
Ah! que deviendras-tu, toi, toujours si riante,
Dans ces lieux ténébreux, nus et glacés des morts?"

"F. G. JUNEAU."

"Ma petite âme vagabonde,
Riante, hôtesse et compagne du corps,
Qui t'en vas en l'autre monde,
Pâle ,glacée et sans decors,
Tu ne lanceras pas comme c'est ton usage,
Tes traits de piquant badinage?"

"EPHREM TURCOT."

"St. Henri, 24 Janvier, 1866."

"Petite âme rêveuse, autrefois ravissante,
Hôte si bien traité, compagne de mon corps,
Iras-tu désormais dans le séjour des morts,
Pâle, rigide et nue, et froide et languissante,
De tes chants si joyeux oublier les accords?"

"* * *"

"Ottawa, Janvier, 1866."

"Petite âme! hôtesse inconstante!
Douce compagne de mon corps,
Ah! toi qui maintenant t'envoles chez les morts,
Et pâle et nue et grelottante,
Auras-tu comme ici, cette gâité constante,
Tes traits d'esprit badin et ta verve piquante?"

"EMMA HUOT."

"Saint Roch, 1 Janvier, 1866."

"Ma petite âme! inconstante et rêveuse,
Hôte et compagne de mon corps,
Toi qui t'en vas sur d'autres bords,
Pâle, nue et toute frileuse,
Ne seras-tu donc plus joyeuse?"

"B. R."

"Hôtesse gracieuse et compagne inconnue,
De mon corps, qu'aujourd'hui tu quittes sans souci;
Dans les lieux où tu vas, pâle tremblante et nue,
Petite âme, dis moi, seras-tu comme ici?"

"Sorel."

"Petite âme inconstante,
Mais hôtesse charmante,
Irez-vous chez les morts
Compagne de mon corps,
Pâle, froide et chagrine
Sans faire la badine?"

Autre version:

"Petite âme chérie
Hôtesse réjouie,
Compagne de mon corps
Irez-vous chez les morts,
Et pâle et froide et nue
De vos plaisirs déchue?"

"UN SEXAGENAIRE."

"Trois-Rivières."

"*Au Rédacteur du Journal de Québec*:

"Trois-Rivières, 16 Janvier, 1866.

"M. le rédacteur,

"Je trouve sur votre numero du 13 courant, les deux essais que je vous avais transmis concernant la traduction *d'animula*, etc., etc. Il n'est certainement pas aisé de saisir le véritable sens de ces cinq petits vers ni de le rendre en français d'une manière satisfaisante: Ca donc dû être pour moi, surtout à mon âge, une témérité de me mettre en lice et d'entreprendre cette traduction. On fait des folies à tout âge et vous entendez bien qu'à 69 ans, on en fait davantage. Mon âge doit donc me servir d'excuse, mais enfin, puisque j'ai commencé ce travail, j'ai cru devoir le continuer, sans pourtant faire de grand progrès. Cependant, en réfléchissant, j'ai cru devoir me reprendre, et comme vous devez le penser, où j'en suis, ce n'est pas la première fois que je me suis repris, ni que je l'ai été, et au risque de l'être encore, je vous transmets une traduction nouvelle que voici, et c'est le *nec plus ultra* de mes forces qui, comme vous allez le voir, ne sont pas de nature à faire peur à personne:—

" Petite âme coquine,
Hôtesse douce et fine
Compagne de mon corps,
Iras-tu chez les morts
Pâle, froide et gredine
Y faire la badine?"

"Eh bien, monsieur, c'est une fatalité! en achevant d'écrire ces derniers vers, voici qu'un autre sens se présente, et je crois devoir le saisir au passage. Pour le coup, ne me jugez pas trop sévèrement, quoique vous pourriez bien le faire sans indiscrétion, et je sens que je n'aurais nul droit de m'en plaindre.

" Petite âme coquine,
Hôtesse douce et fine,
Compagne de mon corps,
Allant chez d'autres bords,
Pâle, froide et gredine,
Y seras-tu badine?"

"Comme vous pouvez le voir, la différence n'est que dans le sens du dernier vers et peut avoir sa raison d'être. Au reste, il faut l'avouer, le sens de cet énigme est aussi fugitif que l'âme dont elle est l'objet; car plus on le médite, (car je crois que c'est pour nous une énigme, si toutefois elle ne l'était pas lors de sa composition,) moins on est certain d'en saisir le véritable esprit.

"Dans tous les cas, monsieur, que ma traduction soit bonne ou mauvaise, je n'entends pas d'y revenir, je n'ai donc qu'à vous remercier de votre indulgence et à demander pardon de ma témérité.

Votre etc., "UN SEXAGENAIRE."

"Trois-Rivières."

" Ame subtile et vaporeuse
Dont le flambeau guide mes pas
Loin de ta demeure argileuse,
Ou vivras-tu comme ici-bas?"

Seconde version:

" Ame céleste et vaporeuse
Douce compagne d'ici-bas
Loin de ta demeure argiteuse,
Souffriras-tu, dis, ne riras-tu pas?"

"L. H. F."

"Pointe Levis."

Ecoutons, Byron:

" Oh! gentle, fleeting, waiv'ring sprite,
Friend and associate of this clay!
To what unknown region borne
Wilt thou now wing this distant flight,
No more with wonted humour gay,
But pallid, cheerless, and forlorn."

Le *Journal de l'Instruction Publique* s'exprime comme suit:—

" Le petit tournoi littéraire provoqué par M. LeMoine, au sujet d'une épigramme de Catulle, dont nous avons parlé dans notre dernière livraison, se continue, et parmi les nombreuses tentatives qu'ont enregistrées les journaux, nous remarquons celle d'un *Sexagénaire*, qui a donné une tournure plus vive et plus narquoise à ses vers que tous les autres concurrents. Il n'a point fait moins de trois traductions différentes: voici la meilleure à notre avis:—

" Petite âme coquine,
Hôtesse douce et fine
Compagne de mon corps,
Iras-tu chez les morts
Pâle, froide et gredine,
Y faire la badine?"

"On nous écrit sur le même sujet ce qui suit. Notre correspondant est un Anglais qui est en état d'apprécier la litérature française, comme on peut le voir à la manière dont il écrit notre langue:—

"Avez-vous remarqué ce que l'on perd en traduisant le latin; ce

que l'on fait des cinq vers qu'Adrien adresse à son âme? Il est vrai que Lord Byron était bien jeune à l'époque de sa traduction; mais voyez que de fautes! Il y introduit de nouvelles idées. Où trouve-t-on dans l'original ce 'gentle wav'ring fleeting' du premier vers? Il aurait pu voir que 'hospes' n'est pas la même chose que 'friend.' Il ajoute 'unknown,' et traduit 'rigida' par 'cheerless,' 'nudula' par 'forlorn,' et perd complétement l'exquise concision et l'élégance du latin, qu'on a bien mieux conservée, dans la seconde traduction française que vous avez publiée. Seulement il me semble qu'on a eu tort d'y mettre 'chez les morts,' et d'oublier ce joli mot 'blandula.' Ne pensez-vous pas comme Horace:—

"* * * *Mediocribus esse poetis,
Non dî non homines, non conssere columnæ?"

Voici une autre traduction anglaise. Elle est de Merivale, je crois. Ne la trouvez-vous point bien supérieure?

" Soul of mine, pretty one, fleeting one,
Guest and partner of my clay,
Whither wilt thou hie away,
Palid one, rigid one, naked one,
Never to play again, never to play?"

Mais enfin, si on voulait citer quelque chose de vraiment admirable, ce serait l'ode de Pope: "The dying Christian to his soul." Vous la connaissez sans doute, car ce sont les vers les plus élevés de notre langue.

THE DYING CHRISTIAN TO HIS SOUL.

O D E.

I

Vital spark of heavenly flame!
Quit, ah quit this mortal frame!
Trembling, hoping, lingering, flying,
Oh the pain, the bliss of dying!
Cease, fond Nature, cease thy strife,
And let me languish into life!

II

Hark! they whisper; angels say,
"Sister Spirit, come away!"
What is this absorbs me quite?
Steals my senses, shuts my sight,
Drowns my spirits, draws my breath?
Tell me, my Soul, can this be death?

III

The world recedes; it disappears!
Heaven opens on my eyes! my ears
With sounds seraphic ring:
Lend, lend your wings! I mount! I fly!
O Grave! where is thy victory?
O Death! where is thy sting?

[Note—Steele, in a letter to Pope, December 4, 1712, requested the poet to "make an Ode as of a cheerful dying spirit, that is to say, the Emperor Adrian's *Animula vagula*, put into two or three stanzas for music." Pope sent the above: "You have it (as Cowley calls it) just warm from the brain. It came to me the first moment I waked this morning; yet, you will see it was not so absolutely inspiration, but that I had in my head not only the verses of Adrian, but the fine fragment of Sappho." He must also have recollected a piece by Flatman (a poet then so obscure as to be unknown to Pope), which contains these lines:—

"When on my sick bed I languish,
Full of sorrow, full of anguish,
Painting, groaning, speechless, dying;
Fainting, gasping, trembling, crying,
Methinks I hear some gentle spirit say,
'Be not fearful; come away!'"

Flatman had probably drawn from the same fountain, the Ode of Adrian:

"Animula vagula, blandula,
Hospes, comesque corporis,
Quæ nunc abibis in loca?
Pallidula, rigida, nudula,
Nec, ut soles, dabis joca."

Thus imitated by Prior:—

"Poor little pretty, fluttering thing,
Must we no longer live together?
And dost thou prune thy trembling wing
To take thy flight thou know'st not whither?
Thy humorous vein, thy pleasing folly,
Lies all neglected, all forgot;
And, pensive, wavering, melancholy,
Thou dread'st and hop'st thou know'st not what."

Paper IV.—ON THE HISTORY OF CANADA.

By JOHN WILSON COOK, Esq., Advocate.

(Read before the Society, Feb. 21st, 1866.)

The history of Canada cannot yet be fully written. Although much progress has been made, the country is still in its infancy; although there have been fierce political disputes, the results of them have as yet been but imperfectly realized. Still, in looking forward to the future of Canada, it is interesting to revert to the past history of the country—a history which tells of the strife and jealousy of races—of the reign of oligarchies—of a struggle for parliamentary supremacy, and of the final attainment of it.

When the army of Wolfe ascended the St. Lawrence, the small colony living on its banks scarce numbered fifty thousand souls; the cultivated lands of the Province were portioned into seigniories, and were the property of the seigniors—descendants, for the most part, of noble families of France. The accounts of travellers, particularly the work of a Swedish baron, who published a volume of travels in Canada some ten years before the conquest, give valuable as well as amusing accounts of Canadian life at that time. The *habitant* he declared to be an unchanged Norman peasant, rejoicing in every peculiarity, virtue, and prejudice of the orignal *bonnet rouge* of Normandy. And the government was as antique as the people. In these days of parliaments, elections, and popular sovereignty, it is curious to think that a feudal government once bore sway in Canada. But, with scarce a murmur, the inhabitants submitted to the exactions of Governors and Intendants. They looked on government as paternal; and the commands of the King's servants, arbitrary

though they might be, were submitted to with filial obedience.

But we would judge very unwisely of Canadian society before the conquest, if we merely considered the primitive simplicity of the country *censitaires*. The Swedish nobleman, from whom we have before quoted, speaks with enthusiasm of the society of Quebec. Dining at the Governor's chateau with the Intendant, the Bishop, the Chief Judge, and a number of Seigniors, he seems almost to have thought himself at Paris. French wit and French wine conspired to make him think that he was once more in Europe. He maintains strongly that the society of Quebec is the best society in America, and expresses his astonishment at meeting so much cultivation in such a country. The then rulers of Canada, although their government was very arbitrary, were educated, courteous, and well-bred gentlemen; and, although we live in times of more general enlightenment, it would, perhaps, be well if some of their qualities were even now more general among our ministers and members of parliament.

The object and intent of French policy in Canada may be said to have been the establishment of a new France, in all respect a counterpart of the old. The only apology for popular privileges was the existence of a Superior Council, composed of the civil, military, and ecclesiastical dignitaries of the Province, by which the *arrêts* of the King for the government of his Canadian subjects were enregistered before they became law; and in this respect, as in some others, the Superior Council performed duties analogous to those of the *Parlements* of France. Of liberty, in our full British sense of the word, there was none. The *censitaires* were subject both to the seigniors and to the government; the seigniors, on their part, were at the mercy of the executive officers. There was, however, much to be admired in French rule in Canada. While the brave Norman settlers had to battle for life against powerful tribes of natives, pious missionaries were sent, under the protection of the government, to convert the Indians to the Christian faith; and although the record of their

labours is a record of Christian heroism, this is not all for which we have to praise them, and the government for which they acted. The most extensive building which the Lower Province can yet boast, the building at Quebec now known as the Jesuit Barracks, originally intended for a University, is a noble monument of their zeal; and they will ever be held in honour for making a provision for the higher education of the people, unsurpassed in comparative munificence in any country.

It is unnecessary to dwell on the circumstances attending the battle of Quebec—the first step to the final conquest of Canada by Great Britain. The British army had been many weeks encamped in the vicinity of the city; and it is not long since old people were to be found, born in the neigbouring villages, and connecting their age with one which had passed away, who remembered, in their early childhood, following George the Second's troops into the conquered city. Wolfe's famous declaration, that he died happy, is known to every one. The Marquis de Montcalm, though defeated, died also like a hero. After the battle had been lost irretrievably, he retired wounded to the town. We read that, as he was entering by the St. Louis Gate, an old woman exclaimed, on seeing him feebly sitting on his horse, *"O mon Dieu! le général est blessé!"* and that, with true French gallantry, he stopped for a moment to beg her not to fear, for they had been conquered by a generous foe. In his last words, he expressed his joy that as he was destined to be defeated, it was also destined that he was to be defeated by such enemies. It was not very long before Montreal was also surrendered, and the whole Province ceded to Great Britain.

The history of early British rule is exceedingly interesting. Of course, for a lengthened period, military government alone prevailed. To trace the gradual introduction of civil administration, the admission of parliamentary government, and the final recognition of parlia-

mentary supremacy, is a study which will not be neglected. As Canada becomes more and more of a nation,—as Canadians become more and more Canadian in their feeling, they will regard with increasing interest the various phases of the struggle which resulted in the final establishment of our present system of government. At the conquest, the new subjects were promised protection in all their civil and religious rights; and although the treaty between the King of France and the King of Great Britain distinctly restricts the stipulations of the British commanders, by the words "as far as the laws of Great Britain will permit," they were wisely, as well as generously, from the very first, accorded full protection in both. It would, indeed, have ill become a great nation to have refused such protection to colonists of another race, who had almost unexpectedly become part of the empire.

The colonists of French origin—the "new subjects," as they were called—did not object to the order of government which followed the conquest. Abitrary as that government might seem to Englishmen accustomed for ages to institutions more or less free, it was so in their eyes. Nor, indeed, could it seem to them as other than a milder form of the despotism under which they had before lived. *Lettres de cachet,* and monopolies of the grossest order—monopolies sometimes even extending to the necessaries of life—disappeared with the old regime. In the case of the common people, the mildness of English military government, as compared with the harshness of the French emissaries, did much to reconcile them to becoming the fellow-subjects of men of a different race, and a different religion. And it was not very long before the turn of events in France led the members of the Canadian noblesse, who remained in Canada after the conquest, to transfer to the crown of England much of that chivalrous loyalty which they had before borne to that of France. The writings of the French philosophers were beginning to impart new ideas to the French people and to the world. The great Revolution was drawing near. The nobles of

France began already to fear that a cruel retribution would follow the oppression of ages; and as the idea seized their Canadian kinsmen, they drew closer to their English fellow-subjects, and became more reconciled to English domination. It was not long after the conquest before the French Canadian gentry were attached, and even enthusiastic, subjects of Great Britain; and it was not alone in Canada that they proved this. Some of them took commissions in the British army, and fighting against the enemies of England,exhibited the courage of their fathers, who had so long strenuously resisted the encroachments of the English colonists of the now United States. The early British governors treated the seignorial families with the respect to which they were entitled—invited them to the chateau, which was then the vice-regal residence—conferred on their members offices of some dignity and little labour; and it only needed the Revolution of 1789 to alienate them as a class for ever from the land of their ancestors.

But British emigrants soon began to settle in the country. Very shortly after the conquest, there were to be found, both in Quebec and Montreal, Scotch and English merchants, many of whom realized fortunes in Canada. Their letters led others to come to the Province, and in fifteen years after the battle of Quebec, there were scattered through Lower Canada several thousands of British people, not connected with the army or the government. It is entertaining and instructive to note how promptly, and unitedly, they objected to military government. The British residents of Quebec took counsel with the British residents of Montreal. Almost unanimously they agreed that the state of things established at the conquest had lasted sufficiently long. Although they had changed the sky under which they lived, they had not, they said, left behind them the spirit of Britons. In England the members of the executive were responsible to parliament, should there not be a parliament in Canada, to which the advisers of the crown should at last explain and justify their acts? It was in 1774 that the first resolute attempt

was made to carry out these views. In that year earnest petitions for a House of Assembly were sent to England—petitions which unquestionably expressed the wishes of the British residents. But many difficulties were in the way. Nothing could induce the new subjects to take part in the agitation for a parliament. The mass of the people were perfectly uninformed as to what a parliament meant; and the seigniors protested perfect faith in the officers and ministers of the King. And, in fact, the French Canadians were not wrong in refusing to pray for the establishment of a House of Assembly. They could hardly, indeed, have been expected to concur in the demands of their British fellow-citizens. The early British residents, although they fought manfully for political privileges for themselves, had but little idea of conferring them on others; for they asked, not for a general House of Assembly, but for a House of Assembly composed exclusively of Protestants. We should not, however, be too ready to condemn the intolerance of the first advocates of parliamentary government in Canada. It was only in 1829 that liberal views in this very matter triumphed in England; and there could be no reason to expect from a handful of traders, in Quebec and Montreal, opinions which did not gain the day in the mother country till more than fifty years after their agitation for a parliament.

The narrowness of the demands of the British residents conspired to delay the establishment of a House of Assembly on any footing, with the distrust of colonial legislatures in general which had been caused by events in the other American colonies; and, on the whole, it was better that the delay should have taken place. While Baron Maseres, once Attorney General of the Province, and a great friend of the colonists, advised them, in lengthened correspondence, not to press too strongly for a House of Assembly, lest in that body equal privileges should be accorded to Roman Catholics and Protestants, the leaders of the French Canadians informed themselves about parliamentary government. Every year brought new settlers to the country. The settlement of Upper Canada

had begun. The British demands for a House of Assembly became more urgent and more liberal. The new subjects began gradually to accede to the views of the old; and at last, by the Quebec Act of 1792, the country was divided into Upper and Lower Canada, and a regular legislature established in each Province. This famous measure was introduced by Mr Pitt, and opposed on several grounds by Mr. Fox. Instead of being separated, the Upper Canadian British and Lower Canada French should, in the opinion of Mr. Fox, have been from the very first united closely together. He opposed also crown nomination to the Legislative Council, and maintained that that body should be elective, but chosen by persons of property from among persons of the highest property. The crown nomination system, which Mr. Fox opposed, has been done away with. That election to the Legislative Council should be confined to persons of the highest property is a principle which would never be agreed to. But if two houses of parliament are to be retained in Canada, one of which is to act as a conservative check on the other, it may certainly yet be found necessary to make the Legislative Council the choice, not of all the people, but of a higher class of electors than the House of Assembly. It is fortunate that the debates on the Canada Bill were amply reported, for they must ever be of importance to those engaged in the study of Canadian history.

The first Parliament of Lower Canada met at Quebec on the 17th of December, 1792. The vice-regal speech was, in the absence of the Earl of Dorchester, delivered by General Clarke. Chief-Justice Smith was appointed Speaker of the Legislative Council. Mr. Panet, an advocate of Quebec, of high standing, was elected first Speaker of the Legislative Assembly. The first Parliament of Upper Canada met at Niagara on the 15th of October of the same year, and was opened by the Lieutenant-Governor, General Simcoe.

In the Lower Canada House of Assembly, the French

members were in a large majority. The Legislative Council, where the nomination was in the hands of the crown, consisted chiefly of office-holders—most of them of English origin, while some of the members were chosen from the old seigniorial families.

The first question which arose was as to what language the business of parliament should be conducted in. It was finally decided to make use of both languages, as is now done in the united parliament.

It was not long ere the great question was mooted which agitated Upper and Lower Canada during well-nigh all their existence as separate Provinces. It was soon found, both in Upper and Lower Canada, that, in the eyes of the Governors, the Legislative Council was of more consequence than the House of Assembly. Nor can any one deny that there was much ground for the preference. In the first Lower Canada parliaments there were members of the House of Assembly who were little, if at all, removed above the people who elected them. In the Legislative Council the case was very different. There were in it, from the first, men of information and talent, inclined to despise the representatives of the people, and who considered themselves entitled to full power; and it was some years before the House of Assembly was at all able to compete with the Council. But gradually the Assembly improved. Mr. Bedard was the first French Canadian leader who agitated systematically for the supremacy of the House of Assembly. Arrested, by order of Sir James Craig, for alleged seditious practices, a Committee of the Assembly was appointed to intercede for him, but feared to act, and the House released them from their commission. The seditious speeches imputed to Mr. Bedard were harmless in comparison with many things now spoken and written on the administration of affairs every day in Canada. A patriotic and able man, he aimed to promote the liberties of the people; and he was the teacher, as well as predecessor, of those who maintained his

principles, and witnessed their triumph. Another sign of popular progress in Lower Canada was the publication of a newspaper in the French language. Two papers in the English language had been published previously—one, the *Gazette,* since 1764; the other, the *Mercury,* since 1805. The *Mercury* supported out and out the Legislative Council: the *Gazette,* edited by Mr. John Neilson—one of the most able and honorable of the men who have taken part in the political contentions of Canada—leaned, though with wisdom and moderation, to the popular side. But *Le Canadien,* the French newspaper, was needed to maintain the rights of the French population, and to instruct them in parliamentary warfare. The stand taken by Mr. Bedard and his friends was a perfectly logical one. When it was said to them, that the French Canadians were infinitely more free then than they had been under the government of France, they answered, that it was undeniably true; but that, having been made against their will British subjects, they had a right to the privileges of other British subjects. To comprehend rightly the whole importance of the stand taken by Mr. Bedard and his friends, it must be remembered that, as a general thing, they were not seconded by their fellow-citizens of British origin. The position of the latter was, indeed, different from that of the French Canadians. They belonged, at least, to the governing race. The leading members of the Legislative Council, well-nigh all the members of the Executive, the majority of the Judges, were English. They did not, then, sympathize with a House of Assembly composed, for the most part, of French Canadians, who, if they succeeded in their efforts, would divide power with Englishmen. It thus came about that, although the non-official British had clamoured lustily for a House of Assembly elected by the people, they for the most part, sided with the Legislative Council nominated by the crown. And, in fact, the history of Lower Canada presents the spectacle of Frenchmen contending stoutly for the predominance in the state of an institution formed in imitation

of the great defence of British freedom; while Englishmen were, from circumstances, willing that the power of that body should be trodden under foot. The Governor and Council was the watchword of the majority of the English: the House of Assembly was the cry of the French. Mention has been made of *Le Canadien* newspaper, in which the views of the French Canadian liberals were first expressed. The state of public liberty during the government of Sir James Craig, which immediately preceded the American war, may be gathered from the fact of its suppression of this journal and the seizure of its press. An article in the paper having given offence to the Governor, he sent down a posse of soldiers, by whom everything belonging to the printing department, together with all letters and manuscripts found in the office, were conveyed to the court-house. Of course no Governor now would for a moment dream of such a proceeding; were he to resort to anything at all akin to it, all parties, would unite in condemning him. But the *Mercury* of the next day warmly applauded the despotic act of the gallant old officer, who, no doubt, thought perfectly honestly that British freedom of discussion was a good thing in Britain, but out of the question in Canada. The liberty of the press, now too often turned to license in Canada, was not won without a struggle.

In Upper Canada, the state of affairs was in many respects different from that in Lower Canada. There, there was but one race, for the great majority of the inhabitants were of British origin. As might be inferred, from the very race of the people, they quickly divided into parties. Conservatives and Radicals played, on the banks of Lake Ontario, the parts of Tories and of Whigs in England. The influence of the Governors of the Province was almost exclusively given to the Conservatives, and every Judge, every sheriff,every bailiff, and every custom-house officer, was an agent and a canvasser of the party. It had occured to a few families—descendants, for the most part, of persons who had espoused the anti-colonial side at the American Revolution, that they had a divine

right to govern the country as they thought best. The executive and the bench were completely at their mercy. They considered themselves the rulers of the lands; and their unwarrantable assumption of superiority was as detestable as their selfish and monopolizing spirit. The domination of the Family Compact has passed away for ever. But the evil effects of the rule of their party long continued to be felt. Nor is it unfair to regard the Upper Canada Rebellion of 1837 as one of their achievements; for had the Upper Canadians not been goaded to rebellion, they never would have rebelled. The opposition which was offered to the Family Compact is one of the most honorable points of Canadian politics. The government of Lower Canada may be said to have been in the hands of a clique at Quebec, as that of Upper Canada was in the hands of a clique at Toronto. But there was a difference between the two. The governing party at Quebec was, in many respects, of a better stamp. The executive councillors of Lower Canada had, for the most part, the sense of honor which is characteristic of gentlemen. The executive councillors of Upper Canada were, with some honorable exceptions, grasping and unscrupulous. The fact that the Rebellion, which was in a great measure their work, hastened their overthrow, should, itself, make us regard the immediate authors of that event with something of consideration.

Rebellion was, indeed, an event which many anticipated long before it actually occured. Although the whole people, French and English, had both in Upper and in Lower Canada, courageously united in 1812 to repel American invasion, the persons sent to administer the government never regarded them with confidence. Both in Upper and in Lower Canada the feelings and wishes of the people were unnecessarily set at defiance. A conciliatory policy would have prevented the Rebellion, calmed the animosities of race, and commenced that process of consolidation and union which is now at length happily going on. But this was neglected. The disputes which led to the Rebellion led also to the alienation of French and English.

When the Upper Canadian Reformers were protesting against the tyannical acts of the Family Compact, the British Lower Canadians were ready to defend acts in themselves little better, because they were perpetrated by officers of British against citizens of French origin.

When, in 1837, the Rebellion broke out, the unpopularity of the government was not greater than it had been for a long time previous. But the popular bodies of both sections had become much stronger, and the feeling of dissatisfaction had become more general. There were, both in Upper and Lower Canada, two divisions of the popular party. These were the supporters of peaceful agitation, and the advocates of physical force. Unfortunately the counsels of the latter led to an unnecessary, though not unprovoked, rebellion. Had there been no Rebellion in 1837, the Province would not have so soon gained Responsible Government. But the old Crown colony system could not have lasted much longer. What it was foolishly as well as wrongly attempted to win by force of arms, would have been at length gained by peaceful declarations of public opinion. But it must be admitted that the Rebellion hastened the triumph of parliamentary goverment. It called attention to the state of things in Canada; it pressed, as it were, for measures of reform; and when the Union of the Provinces, to which it contributed, was accomplished, it led to the tacit acknowledgment of Parliamentary supremacy.

The Union, which took place in 1841, was strongly objected to in both sections of the country. By many Upper Canadians it was said that it would destroy the character of Upper Canada as a British Province. In Lower Canada, on the other part, it was argued that the work of ages would be destroyed by Lord Sydenham; that French Canadian influence would be rooted out for ever; that even the stipulations and guarantees of the treaty would be violated. If the truth were told, Lord Sydenham carried, to a great extent by corruption, a Union which has been productive of much good to both the parties to it. In spite of

all malcontents, the Provinces were in 1841 united. Every artifice has been resorted to, on both sides, that could tend to excite jealousy and antipathy between them. But these attempts have invariably recoiled on the heads of their authors. The mass of the people of both sections have not ceased to regard the Union as other than a necessity, of which no antipathies or jealousies would justify the abandonment.

It has been said that, by the Act of 1841, the doctrine of Parliamentary supremacy was tacitly recognized. But the old battle of the separate Provinces had to be fought again in the united parliament. The Conservative party, which he believed to be the only party truly loyal, met alone with the favor of Lord Metcalfe. The name of that excellent man should not be mentioned without respect. The great aim of his life—spent in the service of his country—was the performance, at any cost, of duty. But he hardly, perhaps, understood the position of affairs in Canada, and, from a mistaken sense of duty to his Sovereign, unduly depressed the Reform party of the Province. However this may be, his attempts to form a strong Conservative ministry entirely failed: the Reformers of both sections were determined that neither the eloquence of their leaders, nor the sympathies of the Governor General, should keep in power men who had been opposed to Responsible Government; and there occured disputes with the Governor not unworthy of the palmiest days of the Lower Canada parliament. The first administration which really possessed—after the Union—the confidence of the Governor General, and the confidence of the majority of the people, was that formed in 1848, by the late lamented Sir Louis Lafontaine, and Mr. Baldwin. The next cabinet was that of Mr. Hincks, now Governor of British Guiana. The Hincks ministry—celebrated for the great public works constructed under its auspices—was replaced by a coalition of Conservative and Reform politicians, which accomplished much to advance the interests of the country. The Seigniorial question, the settlement

of which, in Old France, had been followed by bloodshed and massacres of hideous cruelty, was, in Lower Canada, disposed of by an Act of Parliament. The Clergy Reserves question, the final disposition of which the public peace imperatively required, was settled in accordance with the wishes of the majority, but with an honorable regard to the claims of incumbents. Whether the change in the constitution of the Legislative Council by which that body was rendered elective, was a wise one, is however, doubtful. Two Houses elected by the same people, and representing the same opinions, are very likely to be swayed by the same motives of expediency. And it must be remembered that the old Crown-nominated Legislative Council had ceased altogether to be either able or willing to thwart the nominees of the people. Not only had the expulsion of the judges done much to weaken the Council's power: it could be, and sometimes had been, swamped by ministers who had a majority in the House of Assembly. The rendering of the Legislative Council elective at all is an amusing instance of the infliction of punishment on a political body after it had ceased to be mischievous. Harmless though it had become, it still retained something of its old constitution; and the ultra-Liberals were resolved that all that it so retained should be done away with.

Responsible Government, in other words, Parliamentary Government in its integrity, has, since its establishment in Canada, been assailed from different points of view with equal bitterness. The ultra-Conservative has regretted the undue license which it seems to him to have induced; the ultra-Radical has regretted that under it, destined though he used to think it to be a panacea for all ills, his favourite hobbies have been very frequently rejected. It has been found, as it was certain that it would be found, to be an expensive system; and so many errors, or imaginary errors had been committed under it, that some have had serious misgivings as to the political future of the country.

But there is little ground for such fears. The great national progress which Canada has achieved since the union of the two Provinces, has been accompanied by progress of a higher order. Schools, Colleges, and Universities have sprung into existence. As the education of the people advances, it will be easier to work well and wisely, a system of government which greatly depends for its success on the information possessed by the people. A broader and greater Union is advocated by our ablest statesmen, under the full sanction of Imperial authority. A national spirit is gradually growing and strengthening. Nor need the fact that the population of Canada is sprung from different races be a source of weakness. French and English and Scotch and Irish may well retain the traditions of their fathers, and be at the same time good and loyal Canadians. They may cherish the memories of the old lands, while uniting in defence of the new, in which God has blessed them with a healthy climate, a productive soil, and a free government.

Paper V.—ON CANADIAN LITERATURE.

By HECTOR FABRE, Esq., Vice-President.

(Read before the Society, March 21st, 1866.)

Nous avons donné à nos œuvres littéraires un titre peut-être trop ambitieux, en les désignant sous le nom de "La Littérature Canadienne". Nous prenant au mot, on a pu croire que nous avions la prétention d'entrer en lice et de nous mesurer avec cette grande et belle littérature française dont nous ne sommes au contraire que les humbles tributaires et les fidèles vassaux. Des esprits malins ont été jusqu'à insinuer que nous songions à lui créer une sorte de concurrence coloniale combinant ses efforts avec la contrefaçon belge pour avoir raison du génie français.

Une telle pensée, je n'hésite pas à le dire, ne s'est jamais présentée à l'esprit d'aucun groupe d'écrivains canadiens, encore moins a-t-elle jamais été le mobile et le but de leurs travaux. La seule ambition des hommes qui, parmi nous, se vouent au culte des lettres et s'efforcent d'élever, à côté des tribunes politiques, quelques autels ornés avec un soin pieux et où brille la flamme discrète d'un idéal accessible à toutes les intelligences, leur seule ambition, c'est que notre littérature soit l'écho affaibli de la grande voix de la France se répercutant par delà l'Atlantique, le reflet un peu pâli de son éblouissant génie. Le Canada littéraire n'aspire à être que la plus modeste province de l'esprit français, une Bretagne ou une Provence d'outremer, où, à travers une langue trahissant quelques défaites et portant la marque des luttes qu'il lui a fallu essuyer pour se perpétuer, on découvre cette force innée, cette naïveté d'inspirations, cette franchise de ton, cette originalité naturelle que les écrivains modernes ont perdues en renouvelant avec tant d'éclat et de finesse la face du monde intellectuel.

L'esprit français, ou si l'on veut l'esprit parisien qui est la plus vivante partie de l'esprit français, est arrivé à une période où manquent, jusqu'à un certain point, les grands aspects,—car les grands et immuables aspects du monde moral ont été, avant notre siècle, mis en pleine lumière par le génie,—mais où l'ironie, la curiosité, la passion de la connaissance exacte en toutes choses, du fin mot de tout énigme, héros ou événement, l'exploration minutieuse et infatigable de l'histoire, de la société, de la nature, de l'âme à tous ses degrés, le dénigrement de l'homme par l'homme, gouvernent la littérature et couvrent ses rameaux, que l'on pouvait croire épuisés, de fruits qui charment le regard de l'artiste et dont le goût piquant et de la plus agréable amertume enivre le gourmet en même temps qu'il fait éprouver au penseur des sensations nouvelles, inconnues aux purs classiques. Les recherches de l'analyse sont poussées jusqu'aux replis les plus secrets du cœur humain, les inventions de l'esprit jusqu'aux plus merveilleuses ou aux plus bizarres conceptions, la peinture des mœurs et des caractères s'élève des plus familières images aux plus saisissants tableaux. Cette période est proprement l'époque de l'esprit, de la critique, de l'observation vraie, de la réalité transportée dans les livres, et impitoyablement peinte, impitoyablement raillée. Les vrais écrivains de l'époque actuelle, les écrivains qui résument, en des types frappants, les goûts et les tendances de la société française, ce ne sont ni des orateurs sacrés, ni des tragiques sublimes comme au XVII siècle, ni d'inimitables peintres d'imagination ou des poëtes lyriques incomparables comme dans le premier tiers de ce siècle, ce sont des critiques, soumettant à des analyses ingénieuses et savantes tout ce que jusqu'ici on avait chanté, peint, embelli, tourné en armes de guerre ou arrangé en draperies splendides. La critique est partout, dans l'histoire, la philosophie, la science, le roman, la poésie, au théâtre. Un instant l'illusion, traquée partout, n'a plus su où se réfugier. Cependant comme il faut toujours des rêves au cœur humain, la fantaisie est venue détrôner l'imagination et fournir encore à l'âme des visions gracieuses.

Une jeune littérature, comme la nôtre, ne saurait toucher déjà et sans transition à une période aussi avancée. Elle est loin encore de la verte et spirituelle vieillesse de la Littérature Française. Ses premières œuvres viennent de naître, nos plus vieilles renommées sont voisines de nos jeunes talents, et, sous nos yeux même, plusieurs de nos contemporains se disputent l'honneur d'être les pères adoptifs des lettres canadiennes. Notre littérature ne doit pas, dans le seul but de créer ici une succursale à la littérature moderne, une sorte d'agence parisienne, renoncer tout à coup au développement graduel de ses forces à l'entier épanouissement de ses qualités natives. Nos écrivains, alléchés par le goût des imitations, le voudraient-ils, qu'ils ne pourraient, du jour au lendemain, prendre les brillants dehors et les infirmités de la civilisation parisienne.

Séparés politiquement de la France en 1760, mais littérairement dès le commencement du XVII siècle, nous n'avons point traversé les grandeurs et les épreuves qui l'ont vieillie. Nous en avons à peine contemplé de loin le spectacle grandiose et varié. Tandis que Racine écrivait Athalie ou que Bossuet prononçait l'oraison funèbre du grand Condé, nous étions occupés à nous établir sur un sol nouveau; tandis que Voltaire était au comble de sa puissance, la colonie passait sous la domination anglaise. Au moment où la révolution française ébranlait le monde et lui enseignait la liberté en quelques leçons sanglantes, les Canadiens, perdus pour la France, oubliés, commençaient une lutte obscure dont le prix devait être la conservation de leur nationalité.

L'écho de ce qui se passait en France ne nous parvenait que de loin en loin. Les livres traversaient l'Océan lentement, sans ensemble, sans suite, au hasard. Il y en avait qui ne venaient jamais, d'autres qui arrivaient bien en retard. On s'attachait naturellement aux premiers que l'on recevait, en leur attribuant une importance, un mérite qu'ils n'avaient pas toujours. C'étaient parfois des ouvrages de second ordre qui nous initiaient à un mouvement littéraire. Quelques exemplaires passaient de main en main, fesaient le tour d'une ville, du pays, et frappaient

les esprits à leur image. Dans un pays placé dans de telles conditions, il est évident que les idées courantes devaient sortir d'un petit nombre de livres. Ce serait une étude curieuse à faire pour le nôtre que de rechercher quels sont les ouvrages qui, aux différentes époques, ont exercé une influence décisive sur les esprits. On en arriverait à reconnaître que nous en étions encore à Rousseau, à Voltaire, à Montesquieu, lorsque Châteaubriand régnait, en France, sur toutes les imaginations.

Notre séparation littéraire d'avec la France a donc été presqu'aussi complète que notre séparation politique. Nous n'avons pas plus ressenti l'impulsion des transformations littéraires que le contre-coup des révolutions politiques; nous sommes restés aussi étrangers à l'avénement du romantisme qu'à la révolution de 89. Châteaubriand a parcouru les forêts de l'Amérique, il les a remplies un instant de ses songes grandioses, son imagination y a enfanté des créations immortelles, René, Atala, Céluta, Chactas; il les a ramenées en Europe comme des beautés ravies au désert, comme les idoles de dieux inconnus. Mais ces créations immortelles étaient uniquement les filles de son génie, il les aurait aussi bien conçues dans les solitudes peuplées de ruines de l'Asie; le décor seul et les défauts sont américains. La mélancolie de René est tout européenne et il n'en a rien laissé derrière lui en quittant l'Amérique.

Ce serait donc imprimer à notre littérature un mouvement factice que de la pousser brusquement dans les voies où la littérature française n'est entrée qu'après avoir parcouru tant d'étapes diverses, que de chercher à l'initier tout à coup au scepticisme humain le plus aiguisé, au dilettantisme littéraire le plus raffiné. Elle se trouverait en désaccord complet, en mésintelligence perpétuelle avec notre société dont elle doit être l'image fidèle, la représentation exacte, si elle veut l'intéresser, si elle veut avoir des lecteurs.

Que l'on me permette une comparaison. Il y a dans la vie une époque où l'homme, après avoir traversé les beaux orages de la jeunesse, les actives et fécondes années de la maturité, est arrivé à la pleine possession de son âme et de la vie. Il se connaît lui-même tout entier et il connaît

les autres comme lui-même. Son esprit n'a plus de surprises, son cœur de désabusements, le monde n'a point de secret pour lui. Il aime encore, il aime plus que jamais même, le spectacle des choses humaines, mais ce n'est plus l'auditeur bénévole laissant passer les fausses notes, sans les entendre, dans les flots d'harmonie que verse une belle voix; ce n'est plus le spectateur que l'on trompe avec une mise en scène habilement imaginée, avec des acteurs bien dressés, avec des figurantes trop colorées. Tandis que son regard suit la comédie qui se joue devant lui, sa pensée en voit l'envers, et il s'amuse, non de ce qu'on lui montre sur la scène, mais de ce qu'on lui cache dans la coulisse. Il aime encore la gaîté, mais celle des autres, il admire encore la beauté, mais ne croit plus à l'amour. L'espérance n'est pour lui qu'un souvenir, l'illusion qu'un enfantillage. Cet âge, qui est sans pitié, c'est la cinquantaine; et c'est là, si l'on me passe la comparaisson, l'âge de la littérature française.

La littérature canadienne est encore ,elle, dans la fleur de ses vingt ans. Elle a les qualités, elle a les défauts de l'adolescence. A voir avec quelle prodigalité s'y distribue la gloire, vous devinez qu'on n'en connait pas au juste le prix. Le moindre écrivain, en prenant la plume, fait vœu d'illustrer son pays, et avoue en toutes lettres, dans sa préface, sa funeste résolution. On parle de la postérité comme d'une voisine, bonne personne au demeurant, qui vous presse de l'honorer de votre visite. Jours heureux et fugitifs, dans la littérature comme dans la vie, où l'on prend les battements de son propre cœur pour les applaudissements de sa conscience, toutes les fleurs que l'on cueille sur les bords de la route pour des immortelles! En vieillissant, on apprend ce que durent les roses et ce que valent les livres.

Restons ainsi longtemps, jeunes, ardents; couronnons-nous de roses; cueillons la gloire à tout bout de champ, répandons-la sur tous ceux que nous aimons pour leur faire plaisir et pour qu'ils nous le rendent au centuple! Quel cruel et inutile sacrifice ce serait d'ailleurs que de changer en un automne prématuré notre tardif printemps? Pourquoi renoncer aux plus doux charmes de la vie et aux

plus beaux jours de la littérature? Laissons nos arbres, et jusqu'aux plus frêles rameaux, se couvrir de fruits; il soufflera assez tôt le vent qui en fera tomber les feuilles! Respirons en paix l'air natal et le parfum des fleurs qui croissent dans nos champs. Réservons à la France les grandes aventures de la littérature et de l'art, les hautes entreprises, les chefs-d'oeuvre. Contents de peu, cultivons, sur cette terre lointaine, sous ce froid climat, les plantes dont le germe est dans le sol que nous foulons et dont la végétation encore sauvage éclate autour de nous.

Le rôle de notre littérature, c'est de fixer et de rendre ce que nous avons de particulier, ce qui nous distingue à la fois de la race dont nous sortons et de celle au milieu de laquelle nous vivons, ce qui nous fait ressembler à un vieux peuple exilé dans un pays nouveau et rajeunissant peu à peu. Dans ce vaste tableau de l'Amérique, qui n'est que l'image grossièrement peinte de l'Europe, nous avons une place à part, tout un coin de l'horizon. La France a esquissé les grands traits de notre physionomie nationale, mais le portrait qu'elle voulait tracer d'elle-même est resté inachevé. Depuis lors, bien des influences en ont altéré l'expression, en ont varié le caractère.

Notre société n'est ni Française, ni Anglaise, ni Américaine, elle est Canadienne. On retrouve dans ses mœurs, ses idées, ses habitudes, ses tendances, quelque chose de chacun des peuples sous la domination ou dans le voisinage desquels elle a vécu, la pétulance française corrigée par le bon sens anglais, le calme britannique déridé par la verve gauloise. La pratique suivie et régulière de la liberté constitutionnelle, notre contact incessant avec des institutions et des formes étrangères à notre ancienne mère-patrie, la cessation presqu'absolu de rapports intimes avec elle, les conditions défavorables où nous nous sommes trouvés placés, tout en laissant subsister l'air de parenté entre les Français d'Europe et les Français du Canada, la marque ineffaçable de l'origine, ont détruit la ressemblance frappante. Les Canadiens se sentent aussi étrangers à Paris qu'à Londres, car si notre langage est français, nos habitudes et nos goûts ne le sont plus.

Il y a une grande variété d'opinions sur notre langage. Les uns, nos ennemis, soutiennent que nous parlons une langue dégénérée et appauvrie, épicée d'un fort accent Normand; les autres, les flatteurs, que nous parlons la pure langue classique, la langue du siècle de Louis XIV. La vérité est loin de ces deux excès. Ce qui distingue le langage qui a cours en Canada, c'est précisément le défaut d'accent, le manque de ton. Nous avons ôté à la langue française sa musique. Elle ne sautille plus sur le bout des lèvres, elle n'éclate plus en mille fusées oratoires. Son cours un peu nonchalant nous berce de ses monosyllabes monotones. Notre accent est celui de tout le monde, moins les procédés oratoires qui le varient. De là à parler la langue du grand siècle, il y a loin. Nous avons cependant la faiblesse d'aimer à nous l'entendre dire, quoique nous sachions fort bien que ceux qui nous font ce compliment écrasant n'en croient rien. La langue du grand siècle, la langue que parlait Bossuet dans la chaire, Racine ou le grand Corneille au théâtre, Boileau dans ses entretiens avec Lafontaine, Madame de Sévigné dans ses lettres, songeons-y une bonne fois sérieusement, pour nous corriger de cette prétention ridicule, est-ce possible? Si ces sages réflexions ne suffisent pas pour nous corriger, allons à Paris; bien des gens nous y diront: "Vous êtes anglais, vous êtes belge," personne ne nous dira—"Vous êtes contemporain de Molière.

C'est cette société, miraculeusement conservée sous certains rapports, singulièrement défigurée sous d'autres, qu'il faut peindre, si l'on veut sérieusement qu'il y ait une littérature canadienne. Son histoire, ses diverses phases politiques ou sociales, ses idées, ses mœurs, ses goûts doivent se réfléchir en nos livres comme en de limpides miroirs. Le passé, ce passé qui comprend tant d'époques diverses depuis les premiers jours de la colonie jusqu'à nos grandes luttes pour la liberté, offre mille sujets d'études. Quelles curieuses recherches à faire, quelles intéressantes peintures à tracer de la société canadienne à ses grandes époques: au début, dans les épreuves incessantes, alors que toutes les forces sont employées à dompter la barbarie; plus tard, lorsque la colonie bien assise, respire en

paix et s'efforce de faire revivre, dans la nouvelle patrie, l'image des plaisirs et des mœurs de la patrie absente, de transplanter et d'acclimater ici une société bretonne ou normande; enfin à ce douleureux moment de la séparation en 1760, où il fallut se décider entre le Canada et la France, renoncer à jamais à revoir le pays de sa jeunesse et regarder le drapeau de la France repasser les mers, sans le suivre.

Alors s'ouvre un long drame politique dont les événements de 37 ont été l'épisode sanglant et dont l'établissement du gouvernement responsable a été le dénouement pacifique. Il y a là mille pages d'histoire à écrire. La France qui en est encore à se demander si les Français sont faits pour la liberté, trouverait la solution de ses doutes dans les longues luttes que nous avons soutenues pour obtenir les immunités contitutionnelles dont jouit l'Angleterre, dans la sagesse que nous avons déployée en nous gouvernant.

La société actuelle offre aussi au philosophe politique, à l'observateur social, au peintre d'histoire, au romancier, les sujets d'études les plus variés, les thèmes les plus fertiles. Rien ne ressemble moins à la vie civile, politique, sociale de la France que la vie canadienne. Il y a bien plus de différence entre notre chambre d'assemblée et le corps législatif français, qu'entre notre chambre et la chambre des communes; bien plus de différence entre une audience de nos cours et une audience d'une des chambres de justice à Paris, qu'entre une séance des cours anglaises et une séance de nos cours; bien plus de différence entre un salon de Québec ou de Montréal et un salon de Paris, qu'entre un salon de Québec ou de Montréal et un salon de Londres. Notre vie politique est basée sur le système constitutionnel. Les libertés anglaises s'étendent de l'arène électorale au foyer des familles, de l'administration des affaires publiques à la régie des salons. Les électeurs sont tout-puissants et les jeunes filles indépendantes comme en Angleterre. Le mariage français est fondé sur la dot, le mariage canadien sur l'inclination vraie ou supposée. Il y a dans la critique de nos mœurs, dans leur comparaison avec les mœurs françaises, dans la peinture de

notre état social, toute une mine de piquants tableaux. Il circule à travers notre caractère une veine de gaîté gauloise dont on n'a point encore tiré assez de joyeux propos.

Il y a aussi parmi nous bien des types à créer. Ce n'est pas nous calomnier que de dire que les caractères manquent ici à la fois d'originalité et de variété, et que nous nous ressemblons tous. Il serait trop long d'énumérer toutes nos belles qualités et nos défauts un peu ternes; il me suffit de constater qu'au lieu de les réunir, en les exagérant, dans quelques êtres privilégiés, qui s'élèvent audessus de la foule et fixent de loin le regard, nous les répandons, en les effaçant, dans la multitude des individualités qui s'agitent confusément sur le grand chemin de la vie. Dans les pays Européens, en France surtout, chaque classe, chaque groupe a son type, qui résume ses passions, ses sentiments, ses habitudes, ses costumes, ses ridicules, et qui est comme un exemplaire de luxe d'une foule d'ouvrages inconnus. Ces types sont moitié réels, moitié inventés par ceux qui les ont peints; l'observation des romanciers les a trouvés à l'état d'ébauche dans la société, et leur imagination les a rendus au complet, avec une physionomie plus vraie que nature et contenant dans ces traits particulirs tous les traits généraux de l'espèce. La société parisienne est remplie de personnages jouant dans la vie réelle les rôles qu'ils ont appris au théâtre ou dans les romans. On voit défiler sur le boulevard des Italiens tous les types contemporains illustrés par la comédie, aussi frais et aussi ressemblants que s'ils sortaient à l'instant même de chez l'auteur de *Jérôme Paturot*, des œuvres de Reybaud ou d'Henry Monnier. Il en serait ainsi parmi nous si l'on s'appliquait à peindre les caractères, à rassembler les éléments d'une comédie canadienne, dont nous avons le plus grand besoin si nous ne voulons pas que tôt ou tard nos défauts excèdent nos qualités. Pour plusieurs de ses types, l'observation est facile et la besogne presque faite, ils sont vivants et remuants, il n'y a plus qu'à les jeter sur la toile.

Notre grande et belle nature, dans sa variété infinie d'aspects, est bien faite aussi pour tenter les brillantes imaginations. C'est pourtant le sentiment de la nature qui

manque le plus à nos écrivains. Il y a dans *Charles Guérin* quelques larges descriptions, mais la passion qui s'attache au moindre coin de verdure, où la sent-on? Nos hivers attendent encore leur barde. Chantons nos campagnes, nos grands bois, nos chaînes de montagnes, mais, de grâce, n'y mettons que le moins d'Iroquois possible, ne réveillons pas les Hurons qui dorment. Ces naïfs et fiers héros étaient fort éloquents de leur temps et en leur idiome, mais viennent-ils à s'exprimer en langue moderne et à gesticuler en alexandrins, je les goûte fort médiocrement et ils me gâtent les plus belles choses.

Notre littérature a déjà de nobles œuvres et de gracieux ouvrages à montrer.

Notre histoires est fixée dans ses points principaux et les œuvres de M. F. X. Garneau et de l'abbé Ferland resteront comme les vrais monuments de notre passé. Nobles caractères, âmes patriotiques, dont la mémoire remplit le présent et pour qui a déjà commencé la postérité! L'un, citoyen avant tout, Canadien de la vieille trempe, de la bonne, confondant dans un même amour la nationalité et la liberté, attaché au souvenir de la France, vivant jusqu'au dernier jour dans l'espoir que ce souvenir ne s'effacera jamais de l'Amérique du Nord, et digne de garder toujours le titre d'*historien national du Canada;* l'autre, aussi grand citoyen que saint prêtre, esprit large, cœur dévoué, consacrant sa vie à élever, à côté de l'œuvre de M. Garneau, un temple où sont déposées les cendres de nos martyrs, où vivra à jamais leur mémoire bénie.

Auprès de nos historiens, supérieur à eux par l'étendue et la force de son esprit, se place le premier de nos publicistes, M. Etienne Parent, journaliste et journaliste toujours en vue pendant trente ans, ses écrits touchent d'ailleurs à l'histoire et forment la plus solide partie de nos annales politiques. Personne n'a déployé parmi nous dans ce métier de la presse, dont les conditions sont rendues si difficiles par la passion des partis, l'intolérance des intérêts personnels, l'indifférence du public et les nécessités de l'improvisation quotidienne, personne n'a déployé des vues plus larges et plus justes, une perspicacité aussi rarement en défaut, une sagesse aussi profonde.

L'inspiration nationale a été égale du premier jour au dernier. Deux œuvres de cet éminent esprit donnent à elles seules une idée exacte de sa rare puissance et de sa haute originalité. La première a pour titre: *Du Prêtre et du spiritualisme,* la seconde: *De l'intelligence dans ses rapports avec la société.* Il y a dans ces deux lectures le résumé d'une constitution sociale admirable, fondée sur les vues les plus neuves et les plus profondes. C'est là une œuvre digne de la méditation des esprits philosophiques et dont on ne comprendra que plus tard, lorsque les études et l'expérience politiques seront plus avancées parmi nous, la valeur et la portée.

L'histoire anecdotique du passé a déjà un excellent modèle dans les *Notes* qui accompagnent les *Anciens Canadiens* et dans les *Mémoires* que va publier M. de Gaspé. Si nous possédions pour toutes les époques importantes de notre passé un témoin aussi fidèle, un narrateur aussi spirituel, nous pourrions nous tenir pour satisfaits. Soyons du moins contents de ce que nous avons, remercions le noble vieillard, qui est le plus jeune de nos écrivains, de nous avoir rendu ce qu'il a vu durant sa longue carrière avec un tel aspect de vérité, un entrain si rare; mettons dans un coin choisi de nos bibliothèques, pour les relire souvent, pour les relire chaque fois que nous nous sentirons le goût appesanti par quelque lourd bouquin ou vicié par quelque production réaliste, ces pages animées de la flamme du passé et où coule la verve d'autrefois. Ce fut un jour unique, et qui restera une date dans notre histoire littéraire, que celui où l'on vit apparaître, au seuil des lettres canadiennes, cet auteur qui débutait à 70 ans par un roman. Il n'y eût qu'un cri d'admiration lorsqu'on sentit quelle fraicheur d'imagination, quel charme de style régnait dans ce livre qui devint de suite le plus populaire de nos ouvrages.

En outre des *Anciens Canadiens,* deux romans ont fondé le genre et fixé le cadre du roman canadien, *Charles Guérin* et *Jean Rivard.* Si les deux héros de MM. Chauveau et Gérin Lajoie se fussent rencontrés dans le monde, ils eussent été amis ou parents, car, dans la fiction, ils ont un air d'intimité. Les deux histoires sont vraies, intéressantes, bien conduites, les personnages sont naturels, la

couleur locale bonne; cependant le grand succès obtenu par Jean Rivard a fait, jusqu'à un certain point, défaut à Charles Guérin, qui avec des parties plus brillantes est inférieur à son heureux rival, comme étude exacte des mœurs canadiennes.

La poésie a été de tout temps l'objet de nos plus tendres vœux; il suffit d'ouvrir le *Répertoire National* pour voir que cette passion n'a pas toujours tourné à notre gloire. Cette compilation d'un ami maladroit de notre nationalité a voué à l'immortalité une foule de méchants vers qui se seraient contentés de l'oubli. De tout temps nous avons rimé et depuis vingt ans nous avons des poètes. Ici, je le sens, je marche sur un terrain brûlant. Il est difficile d'assigner un rang à chacun de nos poètes. Comment cependant refuser la première place à celui, dont il n'est plus permis de prononcer le nom, et qui, dans sa pièce des *Morts* et dans la première partie de la *Promenade des trois Morts,* a donné d'éclatants témoignages d'un talent si supérieur? M. Chauveau a composé un petit chef-d'œuvre, les *Joies naïves.*

Nous avons à l'heure qu'il est toute une pléïade de poètes inspirés: M. Léon-Pamphile Lemay, âme souffrante, inspiration sincère, talent énergique; M. L. J. C. Fiset, imagination charmante au vol gracieux, poète délicat au vers élégant; M. Benjamin Sulte, qui a déjà préludé sur la lyre par de mélodieux accords et qui en tirera plus tard des sons puissants; M. Alfred Garneau, versificateur brillant, ciseleur habile.

La *chanson* a été trop négligée jusqu'à l'intéressant travail du Dr. Larue et la belle publication des *Chansons Populaires du Canada,* que M. Ernest Gagnon poursuit avec un zèle de lettré et un soin d'artiste. Par cette compilation M. Gagnon a rendu à notre pays un immense service, car nos chansons forment peut-être encore à l'heure qu'il est le plus clair de notre gloire, aux yeux de l'étranger. Ce qui ne se conçoit pas, c'est notre indifférence, à nous, pour un genre si national. Nos poëtes composent des élégies et des dithyrambes; ils feraient même des poëmes épiques, si on les y encourageait, et nous n'avons point un chansonnier! Le Canadien, né joyeux, est pourtant l'ami des gais refrains. Partout où il va on l'entoure et

on le fait chanter. Il a la voix prompte et le ton juste. Vienne un chansonnier et son nom fera, avec ses refrains, le tour du pays.

Un livre travesti et calomnié par un homme d'esprit, qui n'avait que de l'esprit, qu'il faudrait remettre à sa place dans notre littérature, c'est le *Canada reconquis par la France* de M. Barthe. Cette oeuvre éloquente a coûté à son auteur une grande dépense de talent. Un goût sévère aurait dû sans doute restreindre, dans une certaine mesure, les prodigalités d'imagination, mais il fallait un talent abondant pour répandre ainsi tant de richesses sans les compter. Un écrivain économe de ses idées, bien rangé dans ses phrases aurait tiré plusieurs livres de ce seul ouvrage. Il y a dans le *Canada reconquis* de belles et amples idées, une verve, une imagination exubérante, des passages éloquents. Mais les côtés excessifs ont effacé les bons côtés et mis l'ouvrage à la merci d'un railleur.

L'abbé Casgrain a donné dans l'*histoire de la Mère de l'Incarnation* une intéressante biographie religieuse en même temps qu'il a étalé, dans ses *légendes,* les richesses d'une brillante imagination et les charmes d'un style entraînant. Type gracieux, modèle excellent de l'homme de lettres canadien, il est l'âme de ce groupe d'élite auquel nous devons le mouvement littéraire qui s'est développé en ces dernières années. *Les Soirées Canadiennes,* le *Foyer Canadien,* que ce groupe a fondés, sont plus que de simples recueils de littérature, ce sont les promoteurs d'une ère nouvelle dans les lettres canadiennes. Avant les *Soirées Canadiennes,* nos écrivains n'avaient point encore osé arborer un drapeau séparé, distinct; ils étaient aisément confondus avec la foule des journalistes; leurs écrits étaient perdus, à la première page des journaux, au milieu des nouvelles étrangères et des correspondances locales. Des lettrés délicats, zélés, soucieux de leurs écrits, aussi soigneux de ceux des autres, dévoués à la gloire commune, amis de tous les talents, se sont réunis pour donner aux esprits diversement doués un centre intellectuel, à la littérature un organe permanent. Ils ne se sont pas bornée à éditer leurs propres travaux; ils ont rassemblé dans

de magnifiques volumes ce qui mérite le mieux d'être conservé; ils se sont constitués les gardiens respectueux de la langue, les dépositaires des vraies traditions canadiennes.

A côté de ce groupe, ce serait une injustice, M. le vice-président (M. J. M. Le Moine), que de ne point vous nommer, vous qui rendez tous les jours tant de services à la Littérature Canadienne, qui unissez à la vocation des lettres la passion des études historiques, et qui cherchez à unir dans un même amour du passé, dans un même culte de ses gloires, les deux groupes nationaux qui se partagent le pays.

Je viens de parler, en passant des journaux et des journalistes: je ne voudrais pas m'en tenir à un mot indifférent à l'endroit d'une profession que j'aime et dont il me serait impossible de dire du mal, en eusse-je le droit. La Presse politique a été longtemps parmi nous le seul théâtre où s'exerçait l'art d'écrire bien ou mal, et c'est dans les liasses jaunies des vieux journaux, dans la poudre des polémiques éteintes qu'il faut aller chercher les plus vigoureuses traces du talent, les manifestations les plus vives et les plus variées de l'esprit. Que de luttes oubliées, que d'adversaires réconciliés, que de passe-d'armes dont les vainqueurs eux-mêmes n'ont pas gardé souvenir, que de correspondants anonymes, de journalistes improvisés qui rougiraient aujourd'hui, au sein des honneurs où le hasard les a fait monter, des méchants articles qui tuèrent leurs premiers rivaux et commencèrent leur fortune! Le journalisme est en train de se renouveler: la presse change de face et s'américanise; il ne reste guère de la vieille école qu'un dialecticien vigoureux, qui, après vingt-cinq ans de combats incessants, campe encore sur le champ de bataille. Une histoire détaillée, anecdotique de la Presse Canadienne, une collection des meilleurs, des plus piquants articles, faite par un homme au courant des secrets du métier et bien informé sur le passé, auraient un intérêt extrême. Tant de journalistes dont le talent a été décoré par l'improvisation quotidienne, qui ont vu briser leurs plumes par la haîne et la racune des partis, méritent bien qu'on ne laisse pas leurs oeuvres ensevelies tout entières dans des collections éparses, et qu'on en tire quelques bril-

lantes étincelles de verve pour en éclairer à jamais leurs noms qu'ignorerait sans cela l'avenir.

L'éloquence a brillé de tout temps d'un vif éclat parmi nous, mais, en dehors de la chaire, il ne nous en reste qu'un chef-d'œuvre, le discours de M. Chauveau à l'occasion de la pose de la première pierre du monument de Ste-Foye. Une immense auréole d'orateur entoure le nom de M. Papineau, mais en relisant ses discours, sans doute mal rapportés, et où d'éternelles redites ne contribuent pas peu à faire paraître interminables des phrases déjà longues par elles-mêmes, on ne conçoit de son éloquence qu'une idée bien au-dessous de l'admiration qu'elle inspirait à ses contemporains. Esprit facile et brillant, M. Vallières de St. Réal a laissé le renom d'un merveilleux improvisateur. Ceux qui l'ont entendu sont encore sous le charme. La aussi sans doute il faut faire une large part aux illusions qui restent toujours attachées aux impressions de jeunesse. A l'heure qu'il est les hommes éloquents sont rares. Le talent de parler au peuple, talent fort recommendable lorsqu'il est à sa place, envahit le Parlement. On discute en chambre comme sur la place publique, non pour réfuter ses adversaires, mais pour les terrasser; et si le président ôtait la parole à tous ceux qui, sans peut-être violer les règlements de la chambre, enfreignent les règles de la politesse et les lois de la langue, les discussions finiraient bientôt faute d'orateurs. Au palais, on plaide le moins possible: il est admis qu'il n'est point nécessaire qu'un avocat sache parler; un bon nombre gagnent leurs causes en se taisant, et le jour n'est peut-être pas éloigné où l'on supprimera les audiences et où l'on remplacera les plaidoieries par des *factums*, les citations parlées par des citations écrites.

Il faut souhaiter que quelques esprits jeunes et hardis se consacrent, dans la politique et au barreau, à la réhabilitation de la forme, si nécessaire à la conservation des principes. Notre vie publique, si abaissée, retrouverait à l'instant sa dignité, si l'on exigeait de ceux qui veulent descendre dans l'arène le talent dont ils ont besoin pour y faire honneur au pays. L'art de bien dire a des charmes

tout-puissants qui déjoueraient bien vite les grossiers artifices de la faconde démagogique. Le peuple, qui a perdu l'habitude d'admirer et qui, de nos jours, n'est attaché à aucune grande popularité comme on en voyait autrefois, le peuple se reprendrait à aimer les belles paroles, les fiers accents; il se laisserait séduire encore par l'éloquence, et de jeunes renommées s'éleveraient de tous côtés.

La tâche la plus délicate est réservée à la critique, et il faudrait pour en tenir le sceptre une main douce et ferme, un esprit qui se laissât toucher par les faiblesses du talent et qui sût cependant dire la vérité, au risque de se l'entendre dire ensuite à lui-même. Il est temps que nous mettions de l'ordre dans nos admirations, que nous fassions cesser des confusions décourageantes pour le mérite et injurieuses au talent. En voyant notre modeste fortune littéraire s'accroître à vue d'œil, les têtes les plus froides ne peuvent se défendre d'un accès d'enthousiasme; à plus forte raison les amis des auteurs sont-ils impuissants à modérer l'expression de leur satisfaction et les témoignages de leur sympathie. Il est donc sage de calmer par un peu de critique indépendante de la camaraderie et des coteries, l'effervescence à laquelle on se laisse facilement entraîner, pour peu que l'on aime son pays et ses amis. Soyons justes, soyons indulgents, n'oublions jamais en critiquant un livre que nous sommes peut-être les seuls à le lire, traitons les ouvrages des autres comme s'ils étaient les nôtres. Nous ne sommes encore qu'un petit groupe qui nous occupons de choses littéraires, et bien peu d'entre nous peuvent se vanter avec assurance d'être lus. Chaque jour, en ouvrant un journal ou une *Revue,* je fais la rencontre de grands articles qui, j'en ai l'amère conviction, s'en iront à leur dernière demeure sans être suivis par un seul lecteur. Leur sort me touche, leur solitude m'effraie pour mes propres écrits, et, réprimant un lâche instinct, je m'y mets, mais n'arrive pas toujours au bout. La grande majorité de ceux qui nous entourent est indifférente à nos émotions littéraires et ignore, plus que je ne puis le dire, nos oeuvres et leurs pompes; travaillons tous ensemble à nous créer des auditeurs et, en attendant

qu'ils nous viennent en foule, entre-lisons nous avec sollicitude et indulgence.

Un écueil que la critique doit éviter par-dessus tout, c'est l'écueil des rapprochements indiscrets entre nos écrivains et ceux de l'Europe. D'ordinaire nous ne sommes tranquilles et satisfaits que lorsque nous avons vu accolés à nos titres de gloire des noms qui les écrasent. Il nous semble qu'il manque quelque chose à la noblesse littéraire de nos auteurs lorsque, à la suite de leurs noms ne brillent pas les noms de Lamartine ou de Châteaubriand, dont la sonorité éclatante contraste avec le son un peu sourd des célébrités qu'ils escortent et le bruit léger des renommées qu'ils accompagnent. Fuyons ces rapprochements inégaux, ces comparaisons odieuses et blessantes lorsquelles ne sont pas extravagantes.

Ainsi exercée la critique ne saurait décourager aucun talent sérieux. Elle ne peut au contraire qu'établir les degrés et fixer les nuances.

La critique européenne parfois vient nous atteindre. On ne saurait mettre en doute son impartialité, l'intérêt sincère qui l'anime à notre égard, car, à quelque point de vue que l'on se place, il est évident que nos écrivains ne portent point ombrage à ceux de la France. Nous tenons tant cependant aux éloges d'outremer que plus d'une fois nous avons fait preuve d'une susceptibilité trop vive. Nous nous sommes piqués de la persistance et de la chaleur que l'on mettait à nous féliciter de notre vieux style, nous avons pris pour une injure ce qui n'était qu'un compliment immérité. Mais ce qui nous irrite surtout, c'est le silence que la critique européenne garde le plus souvent à l'endroit de nos œuvres. Quelques uns d'entre nous en éprouvent un dépit extrême et une aigreur mal dissimulée contre la France. Nous aurions tort pourtant de voir là un signe de dédain, une marque d'indifférence absolue. C'est seulement que nous ne sommes point encore parvenus à frapper un grand coup et à imprimer un choc au vaste monde littéraire dont nous voulons maîtriser l'attention. Présentons à ses regards des œuvres originales et nouvelles, des conceptions qui l'étonnent, des tableaux

qu'il n'ait point déjà dans ses galeries, et nous le verrons se tourner à l'instant de notre côté. A la lueur de ces éclairs, il verra toutes nos œuvres encore obscures, il reconnaîtra cette littérature, fille de la sienne.

C'est là le but que doit poursuivre la littérature canadienne; tôt ou tard elle l'atteindra, elle aura un chapitre dans l'histoire de la littérature française. La Nouvelle-France prendra, au-dessous de l'ancienne, dans le monde intellectuel, une place égale à celle qu'elle a perdue dans la sphère politique; elle redeviendra encore une fois sa colonie, lui apportant comme un tribut de reconnaissance un surcroît de gloire.

Sujets anglais ou citoyens d'un Etat libre, nous resterons à jamais les compatriotes de Corneille et de Bossuet, de Châteaubriand et de Lamartine, les lecteurs assidus, les admirateurs passionnés de tant de chefs-d'œuvre, les humbles émules de tant de brillants écrivains. Un jour, nous aurons notre place à ce foyer qui éclaire le monde et parfois l'incendie, et réveillant nos pères, ceux qui ont honoré le pays par leurs actions et ceux qui l'ont honoré par leurs écrits, nous demanderons à la France de leur ouvrir son Panthéon. Dans l'avenir, on verra à la suite des grands hommes qui ont illustré la mère-patrie, les généreux écrivains qui auront conquis au Canada une place dans le monde des lettres.

Paper IV.—ON SOME OF THE FISHES OF THE ST. LAWRENCE

By F. W. G. AUSTIN, Esquire, Advocate.

(Read before the Society, April 4th, 1866.)

Fishes are described as vertebrated animals, with cold red blood, breathing by gills through the medium of water; without lungs; body covered with imbricated plates or scales or with a smooth mucous skin. They propel themselves in water by means of fins instead of feet, which vary in number. They are chiefly carnivorous. Fishes are divided by naturalists into two great groups, viz., the bony, such as the perch family; and the cartilaginous, such as the sturgeon. These again undergo subdivisions and classifications too numerous and technical to define on the present occasion. Some kinds are also known as mammalia, and partake both of the nature and habits of fish as well as of terrestrial animals. These produce their young alive, such as the whale.

There are two or three species of shark which affect or visit the Gulf of St. Lawrence. The thresher shark, which is one of them, is so called from the use it makes of its powerful and flexible tail, with which it literally threshes its enemies. This fish is a great enemy to small whales. In its attacks it is most persevering; and the whale may be often seen to leap quite out of the water and make the sea foam from the torment he endures. The basking shark in a formidable fish, of a dark slate colour, possessing, according to Dr. Storer, fourteen hundred teeth in the lower jaw alone. He inhabits the northern seas, but occasionally visits the American coast. His great size, and his habit of swimming near the surface with his upper jaw out of the water, has, according to DeKay, suggested the idea of the sea-serpent. A fish of this kind is said to have been captured in the Bay of Fundy, forty feet long. The tail was seven feet nine inches broad; the

head five feet across; the mouth three feet wide; the liver yielded 320 gallons of oil. This large quantity savours strongly of a sea-serpent story.

The whale fishery which is carried on in the Gulf, yielded, in 1864, $17,000 worth of oil. The whale fishery of the Gulf, according to Sir Richard Bonnycastle, was formerly of great value, and employed a good many large schooners. The species caught within the Gulf of St. Lawrence are called "humpbacks," and produce about three tons of oil each. The mode of taking them is somewhat different from that followed by the Greenland fishermen. An active man accustomed to boats and schooners, may soon learn the mode of carrying on the fishery. Schooners from seventy to eighty tons burthen, manned by eight men, are employed. Each schooner has two boats twenty feet long, narrow and sharp, with a pink stern, 220 fathoms of line to each boat, spare harpoons and lances. The whale is approached by the men using paddles to make less noise. Whales are sometimes captured in fifteen minutes after they are struck with the harpoon. The largest are taken off the entrance of Gaspé Bay and on each side of the Island of Anticosti. A pretty fish, inhabiting the shores of the St. Lawrence, and which from its extreme diminutiveness forms a striking contrast to the great leviathan of the Gulf, is known by the name of stickleback. Of these there are two or three varieties. These little creatures, which are not often longer than three inches, are armed with sharp spines ranged along the back. One kind has fifteen of these spines, another ten, and the last three. The stickleback family are amusing, lively little creatures, though very pugnacious. They are said to possess the faculty of changing their color. When in a quite healthy state and not frightened, this fish is of a rich olive-green above, and silvery white below, with a golden band along the sides, as if it had been covered with burnished gold; but when unwell or alarmed, all the bright colors vanish, and the creature changes to sober grey, brown and white. It is a voracious fish, devouring great quantities of molluscs, worms, and little crustaceæ.

The sticklebacks are of domestic habits, and not only stay at home, but build their own houses. The nest of the stickleback is a very curious affair, and is constructed like that of a bird. The nest of the three-spined stickleback is made of hay and sticks, generally of the same color as the ground on which the nest is placed; it is about as large as a walnut, and has a cavity in which the tiny eggs are laid. These eggs are not larger than poppy seeds, and of a bright yellow color. The fifteen-spined stickleback has been known to weave its nest out of the loose strands of an old rope found in the water. The stickleback is very careful of its nest, always remaining close at hand, and will charge any creature that approaches its castle.

The Magdalen Islands, situated at the mouth of the Gulf, are important fishing stations. They were frequently visited by French vessels after the discovery of Canada. The Magdalen Islands were conceded, in 1663, by the Company of New France to one François Doublet, of Honfleur, who associated himself with Gon de Quimé and Claude de Landemare for the purpose of trading and fishing. These Islands, it is supposed, reverted again, in 1719, to the French government, as, according to Charlevoix, they were conceded to Lecompte de St. Pierre. In 1763 they fell to the British; and were inhabited by a few French and Acadian families, who lived by fishing for the walrus, an amphibious animal, now extinct in the waters of the St. Lawrence. An American gentleman, named Gridley, founded on Amherst Island a trading and fishing establishment. He took into his service several families of French origin residing upon the Islands, to carry on, upon a large scale, the hunting of the walrus and the seal, the oil from which found a ready market in the New England colonies, as well as the skins, from which a thick leather was manufactured; the tusks of the walrus were used as a substitute for ivory. Gridley's establishment was destroyed by the privateers of the revolted colonies during the American war. After this was over, he resumed his occupation. The walruses, however, which resorted to the beach in herds, were subject to incessant at-

tacks from the fishermen, or rather from the hunters, to whom they were of great value. A number of fishermen, after the conquest of Canada, came from the English colonies to engage in walrus hunting. They carried it on with such perseverance and energy that the extinction of this fine animal, second only in value to the whale, was very soon accomplished. For this brief sketch of the Magdalen Islands, and the walrus fishery, as well as for other information, I am indebted to the Reports of Commander Fortin, the officer in charge of the Gulf fisheries; and it is due to Commander Fortin that I should state, and I have much pleasure in doing so, that that gentleman has largely contributed to the cause of science by describing and classifying over sixty species of the fish of the Gulf.

A fishery of much value to the hardy population of the island and coasts of the Gulf, is the seal fishery. The seals are found in the spring of the year, upon fields of ice, in large herds. They are stunned by blows from clubs, and sometimes obtained by shooting. When the ice is closely packed together, and there are no open spaces to admit of the escape of the seal, a rich harvest repays the severe toils of the hunter. High winds blowing from the same quarter drive the fields of ice, covered with seals, towards the shores, and keep them aground near the coast until a change of wind takes place. On such occasions great prizes fall to the hardy islanders. The approach of the ice-fields, laden with seals, is the signal for the greatest excitement among the whole population. In a short time the news is spread all over by the ringing of bells and the firing of guns. There is a general rush to the shore. Young and old men, each armed with his knife, a rope and a club, spring out on to the fields of ice; while the women remain on shore, within reach, to prepare refreshment and supply warm drinks to enable the men to resist the damp and cold to which they are exposed. With the clubs the seals are stunned, when the knives are employed to despatch them and to remove the skin and blubber. When the harvest is large enough, the spoils are tied together with the rope

and dragged from one field of ice to another until the shore is gained, when the men return for a fresh supply. This fatiguing labor continues throughout the whole day, and even during the night in clear weather, so long as the seals remain and can be got at. During the season of 1864, $18,000 were earned in three days by this industry. It is needless to add that this kind of hunting upon fields of ice is attended with great danger; for should the current or the wind detach the ice from the shores before the hunters regain the land, if not reached by boats they are carried off to sea, there to perish miserably of cold and hunger. Such accidents have frequently occured.

The chief fishery of the Gulf is that of the cod, which commences early in June and continues until the end of November. It is prosecuted in almost every part of the Gulf. The mode of capturing these fish generally resorted to is by hand-lines of from thirty to forty fathoms in length. Each man has two lines, with spare leads and hooks. The fishermen go out in boats. The hooks are baited with herring, caplin, or other small fish, which the cod pursue and prey upon; and so soon as these fish appear on the coast the cod fishery commences. The squid, a strange-looking mollusc, is also a favorite bait for the cod. The success of the cod fishery depends greatly upon the numbers of small fish to be found on the coast. A most improvident use is made in many places of the herring and the caplin, a small fish of the salmon family, by taking them in immense numbers for the purpose of enriching the soil upon which they are spread; these small fish, with several other kinds, have been devoted to this purpose without intermission for the greater part of a century. This cannot fail to have a most injurious effect upon the cod and other fisheries, as it is impossible thus to disturb one operation of nature without upsetting several, so harmoniously blended are the works of the great Creator. The Reports of Commander Fortin, the officer appointed to protect the fisheries of the Gulf, inform us that wherever the bait fails the cod fishery is defective. It has long been remarked, in many places, that owing to

this waste of the smaller fish—the sustenance of the cod—that the cod fishery recedes as agriculture advances. The farmer who thinks he can increase the fertility of his land by making such a use of the small fish, does so at the expense of the fisheries; although a bountiful Providence has placed within his reach inexhaustible quantities of kelp, sea-weed, and other valuable ingredients, which would really enrich the soil, while it is admitted that the use of fish much deteriorates it. Colonel Rhodes, a scientific agriculturist, has tested the value of fish as a fertilizing agent, and found that it did not answer, particularly for the cultivation of green crops, and abandoned the use of it. Strenuous efforts have been made to prohibit the waste of the smaller fish of the St. Lawrence for this ignoble purpose, but hitherto without success. A prohibitory law existed in 1824; this law has been repealed, and no other equivalent provision has been enacted, notwithstanding that this subject has been brought prominently before the authorities having charge of the fisheries. In 1864, 5,110 barrels of herring and other fish, suitable for human provision, was wasted on the soil in the county of Bonaventure alone. Towards the close of that season the charity of the benevolent was solicited, and a government steamer, laden with clothing and provisions, despatched to the lower St. Lawrence to save suffering fishermen from starvation.

On the return to shore of the fishing boats from the grounds where the cod is taken, the boats are run along side stages, built over the edge of the water; upon these stages the fish are thrown out. The first man that handles the fish cuts its throat with a stroke of his knife, and slides it along a table to another, who removes the head and drops it, with the other refuse, through a hole in the table, retaining, however, the liver from which the cod-liver oil is made; the next man splits the fish and takes out the backbone. On the nicety with which these operations are performed the quality of the fish for market mainly depends. They are then washed and rubbed with salt, in which they remain for a few days; they are then again

washed and placed in a pile to drain; after draining for twenty-four hours they are spread out to dry on frames or stages, called "flakes." The fish should be frequently turned,or else they may become "saltburnt." They cure in about three weeks. When sufficiently cured they are laid in small circles, with the tails outwards; these circles are continually built upon, each row being larger than the one below it, until the pile is about three feet high, when the circles begin to diminish so as to form a conical roof; this is covered with birch bark, and stones are placed upon it. The piles are thus secured from the rain, and the fish are left to season before being packed for exportation. In 1864 the total value of this great source of Canadian industry, which cannot be too carefully husbanded, was $621,122. I must leave to the faculty, the task of expatiating on the uses and virtues of cod-liver oil, and content myself with a nicely garnished cod-head and shoulders—a dish on which even *Punch*, the prince of gastronomers as well as of wits, descants in the following stanzas:—

I.

"When round the Busy world we scan,
And learn each human wish,
We surely never find a man
Who'd dine without his fish.

II.

Though some may praise the tender sole,
Or choose the trout instead—
They may be right, but, on the whole,
Give me my prime cod's-head!

III.

With parsley garnished gaily round,
And laid on china dish;
Complete with butter and with sound—
Sure 'tis the King of fish!"

The herring is perhaps, in a mercantile aspect, the fish next in value and importance to the cod. It is a native fish which breeds along the shores of the lower St. Law-

rence, and disappears after spawning time, either by returning to the sea or sinking into the depths of the river; a few, however linger on the coast during the whole season; it approaches the shores in dense shoals. The naturalists, DeKay and Storer, assert that our species differs materially from the herring of European waters, and have distinguished it from the latter by the name of *clupea elongata;* the fishermen designate this fish by the name of "blue back." Scotland and Holland are famed for their herring fisheries; indeed, herring fisheries have been appreciated by all maritime countries. The editor of Baron Cuvier's Natural History of Fishes, thus alludes to the herring fishery: "The coffee-bean, the tea-leaf, the spices of the torrid zone and the silk-worm have less influence on the wealth of nations than the herring of the northern seas. Luxury and caprice may seek those productions, but necessity requires the other. This fishery sends every year numerous fleets to collect from the depths of the stormy ocean an abundant and certain harvest, which the vast shoals offer to the courageous activity of different nations. The greatest statesmen, the most intelligent political economists, have looked on the herring fishery as the most important of maritine expeditions. It has been called the great fishery. It forms robust men, intrepid mariners, and experienced navigators. The nations industriously occupied in this fishery know how to make it the source of inexhaustible riches." In well-regulated European fisheries, the herring is captured by an instrument known as a drift-net. In the second volume of Yarrell's History of British Fishes, it is stated "that the proper mode of fishing for herrings is by drift-nets, but, whether in deep or shallow water, the nets are only in actual use during the night. It is found that the fish strike the nets in much greater numbers when it is dark than when it is light; the darkest nights therefore are the most favorable. Nets spread in the day time alarm the fish, and cause them to abandon the places where that practice is followed." Mitchell, a recent writer on the natural history and national importance of the Herring, also asserts "that fishing during the day time for herrings should be prohibited, as

it drives away the shoals." The same doctrine is laid down by Mr. Perley, in his Report on the Fisheries of the Bay of Fundy.

The inhabitants on the shores of the St. Lawrence capture these fish at all times, as well by day as by night, in brush fisheries attached to the shores; the fishermen sell them generally in a fresh state in the country parts, and some are brought to our markets. Extensive herring fisheries are carried on in the Bay of Fundy and in many other places. The brush-weirs are supposed to be most injurious to this fishery, as they are constructed in the course of the fish when approaching the shores to deposit their ova. Fishing for herrings in the day time, as has been already stated, drives away the shoals; besides, the weirs destroy a great quantity of the fry or young every season. Cochran Craig, Esquire, a magistrate who resided at Grand Manan, represented to Mr. Perley, when visiting the fisheries of New Brunswick on behalf of that Province, that he considered the extent to which the herring fisheries were injured by the destruction of herrings, both fit and unfit for proper use, taken in the weirs, to be almost endless; the heavy shoals of herring fry being yearly cut up by the weirs, and the cod having no bait to draw them in shore, they were only to be found out in deep water, where boats and small vessels—the poor man's dependence—could not follow them. Bouchette, in his History of Canada, alludes to the quantities of herrings which, at the time he wrote, affected the shores at the Eboulemens; these fish were at the same time found in great numbers on the opposite coast,—but they have entirely disappeared from both places, to the great loss of the inhabitants. Their disappearance was no doubt caused by the number of weirs in use both day and night. In the Bay of Fundy quantities of herrings were formely cured by smoking: they were styled by the fishermen "Digby Chickens." Large quantities of herrings are still caught in the Gulf; these are salted and packed in barrels for commerce. In 1864 the herring fishery realized about $55,000.

Another fish which annually ascends the shores of the

St. Lawrence, and constitutes an economic element with which we are all familiar, is the shad. A few years ago this fish was very abundant, and could be furnished in the fresh state at a very low price; it has not been quite so plentiful during the last few years. In alluding to the decline in numbers of this valuable fish, I shall merely cite the opinion of a gentleman engaged for many years as a Missionary among the fishermen of the Bay of Fundy, where these fish formed an important object of trade:—"Standing weirs and standing nets are unquestionably the most effectual means of destroying shad altogether in our bays, or at least of thinning their quantity to an incredible degree; both ought to be discontinued at once and prohibited by strict laws. My reasons," asserts the writer, "for condemning both modes are, first, that by a standing weir shad of all sizes are stopped, and those that have hardly attained half their natural growth are either left to perish on the mud-flats or else are cured pell-mell with the larger ones. I have seen with my own eyes what I here mention." The Reverend gentlemen reiterates his suggestion that both weirs and standing nets should be prohibited by law, as being destructive to shad and very injurious to fisheries and to commerce. The shad of America is said, by Wilson and Dr. Storer, to differ materially from the shad of Europe. It feeds upon the shrimp and the shad-worm, and loses its fine flavour after being some time in the fresh water; it affects muddy shores where its food is abundant, and sometimes attains the weight of six pounds. The mode of fishing recommended to obtain a supply of this fish for consumption is by drift-nets, as these do not form the same obstacle to the growth of the fish as the standing engines. No reliable statistics of the annual value of the shad fishery are available.

The American fishermen derive large profits from the mackerel fishery of the Gulf; these profits may be interfered with by their exclusion from the coast fisheries, which they have enjoyed under the Reciprocity Treaty which has recently ceased to exist, as the convention of the 20th October, 1818, revives. The law officers of the Crown, in

interpreting the convention of Great Britain with the United States of America, are of opinion that, by the terms of the convention, American citizens are excluded from any right of fishing within three miles of the coast of British America, and that the prescribed distance of three miles is to be measured from the headlands, or extreme points of land next the sea, or the coast, or of the entrance of bays or indents of the coast; and consequently that no right exists, on the part of American citizens, to enter the bays of Nova Scotia, there to take fish, although the fishing, being within the bay, may be at a greater distance than three miles from the shore of the bay—as the term "headland" is used in the treaty of 1818 to express the part of the land above mentioned, including the interiors of the bays and the indents of the coasts. The convention did not, according to the opinion of the Queen's Advocate-General and the Attorney-General of England, concede a right to any foreign country of navigating or using the passage of the Gut of Canso. Casting bait, to lure fish in the track of American vessels navigating the passage, would constitute a fishing, within the negative terms of the convention. American citizens have no right to land either, or fish from or conduct a fishery from the shores of the Magdalen Islands. The rights of fishing ceded to the United States, and those reserved for the enjoyment of British subjects, now depend altogether upon the convention of 1818, which is the only existing treaty on this subject between the two countries. The manner of fishing for mackerel pursued by American fishermen is described in Perley's work on the Fisheries of the Gulf, but is rather too lenghty to explain now. This fishery is worth a large sum of money annually to the American fishermen. Canadian fishermen do not appear to understand the importance of the mackerel fishery, and do not engage in it to the extent they ought. The produce of this fishery to this Province in 1864 did not much exceed $28,000.

There are other fisheries carried on in the Gulf, which, however, are of minor importance to those alluded to; they are the haddock, hake, halibut, tunny, smelt, and sar-

dine fisheries. Oysters, lobsters, and other molluscs and crustaceæ are to be met with in many parts of the Gulf in great abundance.

The common lobster is too well known to need any description; he is plentiful on many parts of the coasts, sometimes ascending the St. Lawrence as high as Tadousac. The fishermen are accustomed to insert a peg of wood into the joint of the lobster's claw, to prevent it from wounding them; this is a most cruel process, and is most injurious to the lobster, causing it to pine away, lose weight, and become unfit for food. Fishermen should be forbidden to use pegs, and compelled to tie the claws or forceps with a string. When the lobster is alive and well, its color is nearly black, in some cases having a deep green tinge. But when boiled, or put into spirits of wine, the color changes to red.

To overrate the value the fisheries would be to Canada, under a stringent system of protection and management, would be almost impossible. The British fisheries have become—since the scarcity of other food caused by the cattle disorder, which is still marching onwards—the principal source from which subsistence is obtained by the masses of the English people; and it is a blessing to know that so productive are the waters which surround the British coasts, that this vast resource is not likely to fail. A report published by men of science and experience, among whom was Professor Huxley, at the begining of the present year, on the deep Sea Fisheries of England, affords an insight into the magnitude of this resource, which is capable of supplying not only the metropolis, but the entire United Kingdom. The most frequented fishing grounds are more prolific of food than the same extent of the richest soil: once in the year an acre of good land, carefully tilled, produces a ton of corn, or three hundred weight of meat or cheese; the same area at the bottom of the sea, on the best fishing grounds, yields a greater weight of human food every week in the year. The city of London annually consumes 90,000 tons of beef, and an equal quantity of fish produced by the neighboring waters. The immense

consignments of herrings—the large catches of salmon —the tons of other fish, which arrive daily in the English markets, are astonishing. The consumption of fish-food is prodigious; the supply, nevertheless, is constantly at hand.

Besides the deep sea-fisheries of the Gulf, Canada possesses, in the St. Lawrence, the link connecting the great lakes of the West with the salt of the ocean, joined in its downward course by more than seventy tributaries, including the Ottawa and the Saguenay and their several branches—a field for the cultivation of fish unrivalled in the known world. When the continent was first peopled, this vast fish-farm formed the rich pasture ground of untold numbers of the finny race. The salmon family roamed throughout this vast domain, extending from head waters of Lake Ontario to the extremity of Labrador, in incredible numbers. Most northern regions, in the earlier periods of their history, were famed for their enormous supplies of these interesting fish. So abundant were salmon at the mouths of certain rivers of Boothia Félix, that 3,378 were captured in a single haul. Sir George Simpson found them so plentiful in the Columbia river, that as many as, 1,000 were daily captured in a basket. A stream in Russian America was so full of salmon, that the ascent of it in a canoe was impeded by their numbers. 3,000 barrels of these fish were annually shipped from the Restigouche. The north shore formerly supplied them in immense quantities. Up to the year 1842, this part of the St. Lawrence was literally teeming with salmon. The Hudson's Bay Company used to export thousands of barrels. "I used to see them so numerous," asserted a member of the Legislature, "that, when a boy, I killed them with stones." These localities are now nearly deserted and barren. There are several species of the salmon family inhabiting the waters of this Province: *salmo fontinalis*—the brooktrout; *salmo ferox*—the great grey trout; also the *lunge*, or long-finned trout, and the salmon—*salmo salar*. Some of these species are migratory; even the brook trout, when in its power, descends to

the sea and returns to perpetuate its kind in the coolest and most limpid waters. There is but one distinct species of the brook trout, though the same fish inhabiting different waters, according to Agassiz, is affected by the color and quality of the water; trout even in the same river vary in color accordingly as they haunt the shady or sunny side of the stream. The fish of streams rushing rapidly over pebbly beds are superior, both in appearance and quality, to those of ponds or stagnant pools. The *salmo ferox* is found in the large lakes, and sometimes reaches the weight of 25 lbs., and corresponds in description with the *salmo ferox* alluded to by Yarrell in his work on British Fishes. The *salmo trutta* found in this Province, and which ascends the fresh-water rivers from the sea like, the salmon, possesses the same habits as the species found in European rivers, and described by Sir W. Jardine. The *salmo canadensis,* and the *lunge* are alluded to by American naturalists, and are supposed to be a well-defined species. *Salmo salar*--the salmon--is a well-known fish; as in Europe so in America, it has been long supposed that there is but one species, though American naturalists affect to have discovered three kinds in America. The salmon of Europe and that of America is believed to be the same fish identically: all kinds, should more than one exist, are marked by the same general characteristics. The salmon is born and nursed in fresh-water streams; the female casts her ova on a gravelly shoal over which a current gently flows, forming a bed by making a shallow trench in the gravel, which she afterwards fills up and covers the ova. The autumn is the time of the year chosen, when the water is about 10° above freezing; the water requires to be pure and highly oxygenated, by falls and the rapidity of its course. The young emerge from their stony couch in about one hundred days, and swarm in the stream; they attain the length of an inch and a quarter in a couple of months, and are then called parr, and are easily recognized by their silvery scales and dusky grey bars crossing the lateral line,--they, however, resemble small trout, having red spots on the sides. They grow very slowly for a

few months, but when they attain six or seven inches in length, which about one-half do in a little over the first year of their existence, they undergo a rapid change— the dusky bars and red spots disappear, and they assume a bright silvery appearance, and bear some resemblance to a salmon. They are then called smolts, and descend to the sea. The next season, the half that remained in the river as parr, assume the bright silvery appearance, and, in their turn, descend to the sea. Some return, in two or three months from the time of their migration to the sea, back to their native river as grilse, weighing from three to eight pounds each. So rapid is their development in salt water, that they attain over a pound in weight during every fortnight of their stay, and become marketable fish in about twenty months from the time the ova was deposited in the gravel. They do not all return from the sea the first year; about one-half continue in the salt water until the following season. It appears to be a natural law for these fish to ascend to and return from the sea by double or divided migrations—one half the brood during one season, and the other half during the following year.

A prominent feature in the migration of these fish to and from the sea is, that they always—to use a nautical phrase —"hug" the shore on their way up and down. They do not, asserts Mr. Russel, in his work on the Salmon, lie off in mid ocean, and then, as with a needle and compass, steer right into the river's mouth; but they feel, or, as Sir Humphrey Davy expressed, scent their way along the shore for many miles and follow closely the indents of the land. There appear to be wise reasons for this habit of the fish in pursuing a course along the shores: enemies which would prey upon them are thereby avoided, and they find their natural sustenance, the smaller kinds of fish, along the shores near the land. It is a habit of the salmon, also, to make the coasts of the sea their highway; and this coasting disposition being known to the fishermen, according to Yarrell they project their nets in such places as are most convenient for intercepting them in their course from the sea to their native rivers and favorite breeding grounds.

In 1860 the British salmon fisheries, owing to the use of stake-nets, were in the same depressed condition in which we now find those of Canada, which have declined to such an extent that many rivers where salmon formerly abounded, do not now contain the vestige of a fish. In that year a Royal Commission was issued to enquire into the subject, at the head of which was Sir William Jardine, the eminent English naturalist. These Commissioners reported to the House of Commons, in 1861, "that the stake-nets were opposed to the whole aim and spirit of the fishing laws; that these engines were baneful to the fisheries, not only on account of the numbers of fish they destroyed, but also because they scared and drove them away to sea when they came in shoals seeking the rivers, thereby exposing them to be injured and destroyed in a variety of ways." This system of fishing was accordingly prohibited by an Act of the Imperial Legislature, based upon Sir W. Jardine's report; and three years afterwards the fishery officers for England and Wales reported "that all round the coast the fisheries yielded an unusual return, and the fishing grounds also contained a number of fish hitherto unknown. On the west coast, and on the east, in the north, and in the south, there was scarcely a river where salmon could be found in any numbers in 1860, that was not becoming of importance to the public; or one where salmon then existed, that did not give sure promise that it wanted but care and time to take its place among the market-supplying waters of England." Thus in three years the salmon fisheries of England and Wales were, by timely and prudent legislation, restored to a productive condition; and the people, during the ravages of a rinderpest unparalleled in intensity, are deriving the greatest benefit from this wise foresight.

The engines employed in the salmon fisheries of Canada are very similar to those abolished in 1861, as too destructive to the English fisheries; the official reports of Canadian fishery officers will establish with what pernicious effects. In 1861 the yield of salmon on the Gaspé coast was 688 barrels; in 1864 the yield was only 513 barrels; in

1860 the north shore, covering 510 miles of coast, produced 1,689 barrels of salmon; in 1864 the yield was only 1,-169: showing a decline in both sections of 665 barrels, notwithstanding a large annual expenditure of public money in the protection of the fisheries. The same causes which decreased the salmon fisheries of England and Wales are now injuring those of this Province; Commander Fortin confirms the opinion of the Royal Commissioners in their condemnation of the stake-nets as fishing engines, when he alludes, in his Report for 1864, to the fish escaping from the nets bearing, in many cases, the marks of more or less serious wounds, of which many die and are lost to mankind. A certain number, he adds, no doubt, when recovered of their wounds, re-appear in fresh water, but generally, it is said, in a different river from that in which they have been wounded. This year nearly all the first salmon taken in the Kegashca river bore marks of wounds on the front part of the body, evidently caused by nets, and were not of the same kind as the fish of that river. They came, he concluded, from the Natashquan, where they had striven, without success, to overcome the numerous nets set at its mouth, as they bore clearly defined marks on the head, back and breast, of the nets they had broken through. Every river in the neighborhood of this city where salmon are taken, affords confirmatory evidence of the assertion of Commander Fortin, as wounded fish are constantly captured in them. Engines which inflict wounds upon the fish, scare and drive them away to sea, and thus deprive them of access to their native rivers and favorite breeding grounds, are unfit to be used in our salmon fisheries. The same reasoning applies to all other kinds of fish affecting the shores of the St. Lawrence: and until these pernicious engines, now prohibited in the fisheries of England, and to a great extent in those of Ireland and Scotland, are banished from our coasts and estuaries, the extensive field Canada possesses, for the creation of food and wealth for her people, can never be effectually developed.

[NOTE.—As well shortly previous, as subsequent to the reading of the above paper, the subject of the employment of stationary nets,

and their effect upon shore and river fisheries, was elaborately discussed in some of the leading journals of the Province. The discussion served to establish that these engines are most injurious to the fisheries in which they are used. The editor of the London *Field*, whose opinion, throughout the British dominions, is recognized as authority upon such matters, in alluding to this discussion, writes, in the number of that journal of the 7th last: "If you want to destroy a salmon fishery, poach it, leister it, net it, and rod-fish it as hard and as long as you like, and you cannot do it; but lock the salmon out by means of fixed nets, and the thing is done forthwith. The fish cannot breed, and there is an end of him.This result is so plain, so manifest, that it is one of the most wonderful things, even in an age when rapacity and chicanery abound, to find any one so blinded by short-sighted greed as to defend a system which is so atrociously unnatural that no one ever dreamt of applying it to any other part of the creation." In the number of the same journal of the 19th May last, the editor further observes, "we need not inform our readers either in Canada or here, that we have always condemned such engines utterly and without any reservation whatever." Russel, at page 193 of his admirable work on the Salmon, acquaints us, that it is the nature of the fixed engines on the coasts "to operate in deterring, and obstructing, as well as in capturing; and they so operate in a more injurious way than the similar causes operating in rivers, when salmon are stopped or frightened back within a river; it is generally speaking only a matter of delay and return; but in the sea, the fish stopped by the standing nets, if they escape capture, are driven out among their natural enemies, the seals and porpoises, who systematically wait outside for the chance." This was strikingly exemplified at the Tadousac salmon fishery during the season of 1864, when the fixed machinery planted on the shore, by changing the course of the fish striking it, attracted a large whale and a number of seals to prey upon the straggling salmon. The actual decline in the product of our salmon fisheries between the years 1861 and 1864, both inclusive, is stated by official documents (the last published) to have exceeded in money value $10,000; and this large sum is, of course, entirely apart from the expenditure involved in their protection during the same period.]

PAPER VII.—ON THE BIRDS OF CANADA.*

BY J. M. LEMOINE, ESQUIRE, VICE-PRESIDENT.

(Read before the Society, April 25th, 1866.)

MR. PRESIDENT.—My young friends: I shall to-night briefly direct your attention to a study, which no doubt to the majority here present has proved ever since their boyhood an unfailing source of pleasure, and which I have no hesitation in saying will afford increased gratification the more it is followed. No season of the year appeared to me more propitious for bringing under your notice the feathered race than the period of the spring migration—than those lovely April mornings, when the gardens, the fields and the forest resound with the soft melody of hundreds of winged choristers. Natural history, in all its branches, has ever been reckoned a most attractive subject; it is, however, a study so comprehensive that I find myself to-night under the necessity to take up one department only: let it then be the most interesting.

We shall spend a social hour, and hold contact with the friends of your youth and of mine—the *Birds:* nor need you doubt me when I tell you that it is not in the spirit of exact science, nor with the pedantry of a professor, but rather with the freedom of an old acquaintance that I shall to-night introduce to you some of the denizens of the woods and minstrels of the grove—so correctly styled "the accredited and authenticated poets of nature." Do not, then, expect a set discourse on ornithology. Stray jottings—rambles amongst birds and books—that is all I can promise you at present.

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*The substance of this paper was delivered as a lecture, for the benefit of the pupils of the High School and other public institutions, and for the avowed object of making known the contents of the Museum of the Society. The lecturer, well known by his French work, "*Les Oiseaux du Canada,*" also furnished several specimens from his own extensive museum at Spencer Grange.

That branch of zoology which treats of birds is denominated ornithology, from two Greek words—ορνιθοζ a bird, and λογος a discourse—a discourse on birds—the history of birds. It is beyond a doubt, that this department of the animal kingdom attracted the attention of mankind in the remotest ages: several birds, as you are aware, are indicated by name and their peculiarities alluded to in Holy Writ. Mention is frequently made in the earliest and best of books, the Bible, of the soaring eagle, the dismal raven, the tiny sparrow, the grave-looking owl, the migratory stork. The care taken of the prophet Elijah by our sable and far-seeing friend the raven, you all remember reading of. This reminds me I am indebted to my friend, Colonel Rhodes—the Sillery *Nimrod*—for this splendid specimen of the raven, shot last winter whilst cariboo-hunting at St. Paul's Bay.

The dove and raven were both honoured with important missions by that distinguished and most successful navigator Noah. You know how much the ibis was petted, nay honoured, in Egypt: the white ibis was in special veneration in Thebes—had the run of the city. The stork was sung by Herodotus, the swan by Virgil and a host of other poets: Aristophanes, some twenty-three hundred years ago, celebrated not only the croaking of frogs, but also the melody of birds.

It was, however, reserved to one of the loftiest minds of antiquity, Aristotle of Stagyra, to furnish the world with the earliest methodical information on zoology. This great man was the first to observe and attempt to explain the organization of animated nature. His treatise, *Nepidwon Icroptac*, will ever be regarded as one of the masterpieces of antiquity. The generation of animals, their habits, their organs, the mechanism of their functions, their resemblances and differences are therein discussed with astonishing clearness and sagacity. Aristotle may be reckoned as having established a solid basis for Natural History; and his principal divisions of the animal kingdom

are so well founded, that almost all of them are still substantially admitted. In arranging facts, he carefully goes back to causes from general results.

We next come to the Roman, Pliny the Elder, born A.D. 23, who died, as you may have read, in the year 79 of our era, from the noxious fumes of Vesuvius during the eruption which, it is said, destroyed Herculaneum. Having the charge of a Roman fleet, he had, in attempting to succour some of the unfortunate inhabitants, ventured too near the scene of the calamity: he died during the following night. I presume some of you have perused the very interesting letter recording the event, written by Pliny the Younger, the nephew and adopted son of the Roman naturalist.

As a laborious, but not always reliable, compiler, you have heard of Aldrovandus, born about 1535. I said not always reliable: to illustrate this latter point, I shall now quote from the 1st vol. *Canadian Naturalist,* an extract purporting to describe one of our most beautiful winter visitors, the Bohemian Chatterer, or Waxwing: a specimen is in the museum of the Literary and Historical Society. I was fortunate enough to snare three very fine birds of this species in January, 1864--this is the only time I saw them round my house, at Spencer Grange. I kept them all winter in my aviary, and they soon became so bloated, so uncommonly portly, from good eating, that they were struck down by apoplexy, and one after the other died. I need not tell you the sorrow such a catastrophe brought to my family circle.

"That the Bohemian Chatterer was known to the ancients there can be little doubt; but a great deal of obscurity prevails as to the names by which it was distinguished. Some have taken it to be the *Incendiaria avis* of Pliny (book x., c. 13), the inauspicious bird, on account of which appearance Rome more than once underwent lustration, but more especially in the consulship of L. Cassius and C. Marius, when the apparition of a great owl (*Bubo*) was added to the horrors of the year. Others have suppo-

* Canadian Naturalist and Geologist, I., p. 467.

sed that it was the bird of the Hercynian forest (book x., c. 47), whose feathers shone in the night like fire. Aldrovandus, who collected the opinions on this point, has taken some pains to show that it could be neither the one nor the other. The worthy Italian gravely assures his readers, that its feathers do not shine in the night; for he says he kept one alive for three months, and observed it at all hours (*'quâvis noctis horâ contemplatus sum'*). It is by no means improbable that this bird was the gnaphalos of Aristotle (Hist. anim., book ix., c. 16.)

"The geographical range of the Bohemian Chatterer is extensive, comprehending a great portion of the arctic world. It appears generally in flocks, and a fatality was at one time believed to accompany their movements. Thus Aldrovandus observes that large flights of them appeared in February, 1530, when Charles V. was crowned at Bologna; and again in 1551, when they spread through the duchies of Medena, Piacenza, and other Italian districts, carefully avoiding that of Ferrara, which was afterwards convulsed by an earthquake. In 1552, according to Gesner, they visited the banks of the Rhine, near Mentz, in such myriads that they darkened the air. In 1571, troops of them were seen flying about the north of Italy, in the month of December, when the Ferrarese earthquake, according to Aldrovandus, took place, and the rivers overflowed their banks.

"Necker, in his memoir on the birds of Geneva, observes that from the beginning of this century only two considerable flights have been seen in that Canton, one in January, 1807, and the other in 1814, when they were numerous, and, having spent the winter there, took their departure in March. In the first of those years they were scattered over a considerable part of Europe, and early in January were seen near Edinburgh. Savi observes that they are not seen in Tuscany, except in severe winters, and that the years 1806 and 1807 were remarkable for the number of them which entered Piedmont, especially the valleys of Lanzo and Suza."

I could dilate at length on the history of this mysterious stranger, who appears to have so startled antiquity. Here

is the ominous individual: see how silky his plumage! mark the wax-like tips of his wings! this is no doubt the portion which was supposed to shine at night. Be careful, however, not to confound him with the *Cedar* or *Cherry Bird*—our summer visitor: he resembles him much in plumage, but is twice his size.

Nor should we omit the names of Redi, Swammerdam, Willoughby, John Ray, and especially of Francis Bacon, amongst the laborious tillers of the soil of Natural History.

Next to Aristotle and Pliny, ranks the great botanist and naturalist Linnæus, who devoted a lifetime to reforming and rearranging the history of all natural productions, and lived to see his method triumphant and almost universally received. Nor was he a mere nomenclator; his vast genius led him to take the most elevated views of nature. He penetrated with a glance into causes which were the least obvious on the surface. Order, precision, clearness, exactitude of description and accurate knowledge of relations in detail distinguish his works. He it was who sent to America, to Quebec, the eccentric Peter Kalm: every guide-book reminds you of the amusing account Kalm wrote of Quebec and Montreal society in 1749; what a fine fellow Count de la Gallissonière, the Governor General in those days, appeared to the Swedish traveller;—how our respected grandmothers chatted, frolicked, dressed, danced;—how well he related all he saw, and some things he did not see. We are led next to consider the brilliant career of a French naturalist, an elegant writer and profound philosopher, Count Buffon. Possessed of a vast fortune, moving in the highest circles of a nation famous for its civilization and learning, Buffon, during half a century, from his *chateau* of Montbard, promulgated his canons to the scientific world: he tells us he spent forty years in his study, perfecting and rounding the sentences of his immortal works; but, when bearing in mind the life-like sketches of birds written by Buffon's successors and contradictors, the writers of the new school, such as Alexander Wilson, Audubon, Chas. Buonaparte, one is inclined to

regret that the sedentary philosopher should have spent so much time indoors describing his favourites, instead of ransacking the forests, the fields, the seashore, to see for himself, like Audubon and Wilson, how God's creatures lived, loved, sang and died.

No doubt, my young friends, you would like to have some details of the career of the two celebrated naturalists just mentioned, especially as their fame is identified with the name of America; both, as you may know, visited Quebec. Alexander Wilson, the author of *American Ornithology,* was born in 1766, at Paisley, in Scotland. At the early age of thirteen, he was indentured as a weaver to his brother-in-law, William Duncan. His parents were peasants. A few years after we find him acting as a pedler: dealing in cambrics, cotton, calico by day; poetry and natural history by night. His restless mind, poetic temperament and poverty induced him to seek fortune in a then new and attractive arena, the United States, where he landed on the 14th July, 1794. In 1795, he again took to the pack, and next became a teacher shortly after. In 1802, he accepted a situation as tutor in a seminary near Philadelphia. There he became acquainted with Mr. William Bartram, the naturalist and botanist, who encouraged him, and lent him the works of Catesby and Edwards, on Ornithology. Space prevents me from following the ardent admirer of birds through his rural peregrinations. There is an interesting episode in his life connected with the refusal of President Jefferson to second the efforts of the aspiring naturalist. He died in 1813, aged 47, from the effect of a cold caught whilst pursuing some rare bird, having had to swim a river in order not to lose sight of it. Although progress has been made in American ornithology since the days of Alexander Wilson, his treatise, as far as it goes, serves yet as a text-book to naturalists of every nation.

How can I becomingly sketch the adventurous existence of the Prince of American naturalists, John James Audubon? Who can do justice to the memory of this noble-minded son of science, whose great work, *The Birds of*

America, is likely to remain in succeeding ages—a permanent monument of the highest order of genius, celebrating the wonders of nature, in the denizens of the air and songsters of the grove?

John James Audubon saw daylight for the first time, in Louisiana, in 1782: he was of French extraction, and was sent to Paris to complete his studies. It was there he learned the art of drawing from the celebrated painter David. On his return to America, at the age of eighteen, he lived with his father, near Philadelphia, on a beautiful estate surrounded by park, lawns and gardens. He soon gave himself up to commercial pursuits, and, with that object in view, started for Kentucky. The whole of his books teem with the vivid descriptions of his wanderings in Yankee land. In 1810 he met, for the first time, his great rival, Alexander Wilson. In 1811, Audubon said good-bye to the *cash-book* and *ledger,* and, gun and sketch-book in hand, he dived into the depths of the American forests in quest of knowledge and materials to achieve his great undertaking. In 1814, he was favoured with an introduction to the celebrated prince of Canino, Charles Lucien Buonaparte, a close relative of the present French Emperor, and author of most valuable treatises on American Birds, some of which you will find on our shelves. After visiting the States in all directions, Audubon sailed for Paris, London and Edinburgh. His drawings of American birds had already attracted abroad considerable attention. In England he soon became acquainted with several men of note in literature: Professors Sedgwick, Whewell, Henslow, Dr. Thackeray, Dr. Buckland, Dr. Kidd; in Paris, Baron Cuvier, Swainson, Geoffroy St. Hilaire, his son Isidore;—D'Orbigny, Lesson, and other *savants* shewed him marked attention. The sovereigns of England and France patronised the enthusiastic disciple of Buffon, heading with their names the subscription list to his great work. I wish, my young friends, I could gratify your wish, and follow step by step this wonderful man in his ornithological rambles through the length and breadth of this green land: this day, you might be ascending with him one of the *bayous*

of Florida, to watch the habits of the scarlet flamingo, and next month, scanning the prairies of Kentucky to catch the Wild Turkey on her nest; the season following might find you toiling up the rugged and barren uplands of Labrador —a locality so desolate, so rocky and inhospitable that, to use the words of the late abbé Ferland, "there is not enough of soil to bury decently the unfortunate traveller who might perchance die there". Audubon visited Quebec in 1842, residing several weeks with a Mr. Marten, in St-Peter street, an excellent taxidermist and great admirer of the feathered race, and, on his departure, Audubon requested him to accept, as a token of remembrance, a copy of his magnificent work on the Birds of this Continent. There are yet several amongst us who can recall to mind the dignified, courteous, white-haired old gentleman, with black, piercing eyes, eminently handsome in person—one of nature's true noblemen. Spencer Wood in those days belonged to the late Henry Atkinson, a warm friend of the gifted naturalist. Many the stroll did the latter enjoy at Spencer Wood, listening,under the umbrageous pines and old red oaks, to the flute-like warble of the veery and metallic notes of the Thrush. His steps occasionally wandered, I am proud to say, over that portion of the estate which has since passed to me; the shady avenue consecrated by the presence of this man of genius, is now known to my children under the name of "Audubon Avenue." These memories, which to some may appear commonplace, I recall with unfeigned pleasure; and whilst there and listening to the harbingers of spring, or poring over Audubon's works, I am reminded that here once breathed and stood the possessor of one of the most honoured names in natural science —a nobleminded fellow-man—whose glory and whose history are inseparable from that of North America. Audubon spent more than twenty years completing his superb drawings and compiling the Biography of the Birds and Animals of America; he sank to rest in 1852, aged seventy years, in the full blaze of his glory.

Next to Wilson and Audubon, in the field of Natural History, I shall point out to you a name widely respected

in America, and well received in Europe—Professor S. F. Baird, of the Smithsonian Institute, Washington; he is known to us as the chief compiler of the celebrated 9th vol. of the Reports of this Institution, which elaborate book you have now before you; he was ably seconded in this laborious undertaking by Mr. Geo. Lawrence, of New York, and Dr. John Cassin, of Philadelphia. Dr. Cassin is also the author, amongst other publications, of a most gorgeously illustrated work on some new Western birds, also forming part of the library of this Society.

In Wilson's *Ornithology,* published in 1814, we find mentioned 284 species. Buonaparte, in 1838, has described 471. Audubon writing in 1844, brought up the list to 506. Baird's report, which appeared in 1858, enlarged the number to 738, of which more than 300 species are to be found in Canada, either as accidental visitors or sedentary species. The Smithsonian report divides the birds into six orders, viz.:—

I.	*Raptores*	Birds of Prey.
II.	*Scansores*	Climbing Birds
III.	*Insessores*	Perching "
IV.	*Rasores*	Dusting "
V.	*Grallatores*	Wading "
VI.	*Natatores*	Web-footed "

Each of these orders might comprise as follows:—I. order, 36; II. 18; III. 120; IV. 15; V. 42; VI. 69. Canada, not embracing all the varieties of climate and temperature which the American Union does, cannot be expected to unite all the varieties of birds to be found in the United States. The Canadian Fauna is nevertheless very beautiful and varied in its features, including a numerous collection of birds of prey. The web-footed order is well represented here. The Woodpecker family comprises some brilliantly habited individuals. But the most numerous and varied in plumage are the Perchers or singing birds. Alex. Wilson spoke eloquently and truly, when he said. "The ornithology of the United States exhibits a rich

display of the most splendid colours; from the green, silky, gold-bespangled down of the minute humming bird, scarce three inches in extent, to the black coppery wings of the gloomy condor, of sixteen feet, who somestimes visits our northern regions; a numerous and powerful band of songsters, that for sweetness, variety, and melody, are surpassed by no country on earth; an everychanging scene of migration from torrid to temperate and from northern to southern regions, in quest of suitable season, food and climates, and such an amazing diversity in habit, economy, form, disposition and faculties, so uniformly hereditary in each species, and so completely adequate to their peculiar wants and convenience, as to overwhelm us with astonishment at the power, wisdom, and beneficence of the Creator.

In proportion as we become acquainted with these particulars, our visits to, and residence in the country, become more and more agreable. Formerly, on such occasions, we found ourselves in solitude, or, with respect to the feathered tribes, as it were in a strange country, where the manners, language, and face of all were either totally overlooked, or utterly unknown to us; now, we find ourselves among interesting and well-known neighbours and acquaintances, and in the notes of every songster, recognize with satisfaction the voice of an old friend and companion. A study thus tending to multiply our enjoyments at so cheap a rate, and to lead us, by such pleasing gradations, to the contemplation and worship of the Great First Cause, the Father and Preserver of all, can neither be idle nor useless, but is worthy of rational beings, and doubtless agreeable to the Deity.

The lecturer, by means of the diagram of a bird drawn on a large board then explained the different portions: *Primaries, Secondaries, Tertiaries, Scapulars, Rhump feathers, Auriculars, Tarsi, Tibia, Iris, Mirror,* total length, *alar extent,* and a variety of other technical terms.

Linnæus, in his *Systema Naturae,* divides the class of birds into six orders. Blumenbach makes *nine* orders;

Cuvier, *six;* Vieillot, *five;* Temminck, in his *Manuel d'Ornithologie, sixteen;* Agassiz and Gould, in a recent work, recognize only *four* orders.

Classification is one of the most important portions of Ornithology. A new light has dawned on this science, since the learned researches of Dr. Thos. Brewer, of Boston, and other American and European *savants* who have applied oology to the classification of species; thus, several rare hawks, in different plumage, have been recognized by their eggs. The eggs of owls, instead of being elliptical, like those of the generality of birds, are spherical. Eggs are also identified by their markings,—lines,--spots,—stripes,—or by the absence of them, like the eggs of some of the thrushes. Collecting wild birds' eggs has become quite a trade. Scientific institutions in Europe have given as much as £15 stg. for a rare egg. Several Canadian institutions have recently added to their museums collections of birds' eggs: the Literary and Historical Society,—the Laval University, and the Normal Schools, in Quebec and Montreal. The contributions of friends in this, as in the collection of birds, have induced me to add a collection of eggs to my specimens.

Before we examine the contents of the collection laid before us, let me point out to you one particularity respecting the birds of prey: *the female in general is nearly one-third larger than the male.*

The vastness of the subject now before us is such that I am compelled to confess how rashly I acted in promising you at the outset a discourse on the ornithology of Canada. It would require, at least, a dozen of lectures to place the topic before you in a becoming manner. I shall, therefore, content myself with familiarising you with some of the specimens belonging to our museum. Let us select a few out of each order.

Here is the King of Birds—a fair specimen of the Bald Eagle. Oh! you proud, overbearing robber, on the watch at noon-day for some industrious Osprey, hurrying to his mountain home, with a lively trout in his beak; or else, says Audubon, keeping with his mate a sharp look out for

an unsuspecting swan, a fat goose, or a dainty canvass-back. Did our shrewd, far-seeing neighbours, really intend to foreshadow the career of the Republic founded by Washington and Franklin, when they chose as their national symbol such an overbearing, grasping bully?

The Bald Eagle is more abundant in Western than in Eastern Canada. The shores of Burlington Bay and the Falls of Niagara are his favourite haunts. It is there he can be seen in his natural grandeur, circling in vast spirals over the seething caldron. The Golden Eagle, another beautiful species, is very common around Quebec. Of his ferocity, spirit of rapine, and boldness, you have heard:—of little children mysteriously disappearing from their happy homes, and of their bleached bones being found years after in an eagle's eyrie, high on the loftiest ledge of the neighbouring mountain. Science has awarded to this fine bird the cognomen of "*Aquila Canadensis,*" and were it not that our future Confederacy professes to have honesty as its basis, and were it not for the sanguinary instincts of the Canadian Eagle, one would mostly wish him to take the place of the Beaver, the Rose, the Thistle, and the Shamrock, as the emblem of our nascent empire.

Shall we quit the Eagle tribe without directing your notice to that majestic Eagle which Audubon discovered whilst ascending the Mississippi in 1814, his attention having been directed to it by the pilot of the boat—a Canadian. This powerful bird, a specimen of which he shot subsequently in Kentucky, measured 43 by 122—that is, from tip to tip of wing, ten feet; and three feet seven inches from the end of the head to the extremity of the tail. But one specimen as yet exists in the American collections —that in the museum of the Natural History Society of Philadelphia. It is well to state that this gigantic bird which Audubon honored with the name of Bird of Washington, has much exercised naturalists; some protesting that is was merely an overgrown individual of the Golden Eagle, whilst others asserted that the *scutellae* on his *tarsi* denoted a distinct species.

At least twenty varieties of the Hawk family visit our

latitudes; here is the delicately spotted Goshawk, identical with the European species: the breast is of a lovely ash colour, with most delicate markings; there is the Rough-legged Buzzard; there the Marsh Hawk, whom I am sure, on viewing this specimen, you all recognize as that unwelcome prowler who made you miss by his swoop *such* a shot, on the Chateau Richer, Crane Island, Sorel, Deschambault or Ste. Clair marshes, at some period or other of your sporting career; there is another species with large expanse of wing,—that is the Broadwinged Hawk, not so large as the Goshawk, and of plumage less bright; then comes the sharp-shinned; next, the Pigeon Hawk, and, lastly, the little Sparrow Hawk, with its elegant cinnamon-coloured back and black bands on its tail. I miss here a splendid individual, the great Duck Hawk—*Bullet*-headed Hawk, as some style him—who is none else than the celebrated Peregrine Falcon of the days of chivalry; he is tolerably common in Canada West, one was shot at Charlesbourg, near this city, some years back. The limits of my discourse prevent me from quoting, for your benefit, the elegant and truthful descriptions of the Peregrine and his fearless compeers, as sketched by Audubon. Shall we leave this fierce band of day-robbers, and investigate the doings of those formidable midnight raiders, the Owls? See how grave, how omniscient they look, with their rolling, shining yellow eyes, their soft plumage and their warm fur-leggings, impervious to cold the most intense! There he sits on his perch,—the dignified patriach of the whole tribe: the Great Cinereous Owl; look at him well—he is not an everyday visitor by any means—the largest of the owls; he even exceeds in size that white and fierce marauder, the Snowy Owl—the Great Northern Hunter, as he is aptly styled; as you know, he is frequently shot in the surrounding country during the winter months. Nature has wonderfully adapted these birds to the climates they inhabit. They hunt by day as well as by night, and, in the soft moonlight, you can scarcely hear the muffled sound of their wings, when pursuing hares or other small animals. Of the ferocity of the Snowy Owl unquestionable

proofs exist. The attack of a Snowy Owl, rendered desperate through hunger, on a Roman Catholic Missionary, is amusingly related in a *Journal of Travel* on the Labrador coast. The Reverend Father was so astounded at the daring of the bird of prey, that he sought his safety in flight. Of the Virginian, or Great Horned Owl, there are, according to Baird, five varieties —*Atlanticus, Magellanicus, Pacificus, Articus, Virginianus: Atlanticus* and *Virginianus* alone visit Canada. This bird is often caught in the steel traps baited for foxes; the ferocious attitude and indomitable courage he exhibits, when approached by dog or man, is wonderful to behold; he snaps his powerful beak, rolls his bright eyes, and erects his feathers—the very emblem of concentrated rage. I have not heard of any successful effort to domesticate the Great Horned Owl. The Barn Owl, highly valued in some countries as a destroyer of rats and mice, does not inhabit Canada.

I have now placed before you in a row, according to their size, the Owls which visit us; you notice the gradation from the Great Cinereous, the size of a large Turkey, to the little Saw Whet, a sweetly pretty, tiny fellow, not much bigger than a Snow Bunting. What an interesting group of wiseacres they all seem? Legislative or City Councillors in conclave!

You see in the Museum of our Society some fair representatives of the web-footed Order of Birds.

First amongst them, conspicuous for the brilliancy of his plumage, note the Wood or Summer Duck, *Anas Sponsa; sponsa* means a bride, from the gay colours of the individual probably. Here is the Mallard, the Dusky Duck, the Gadwall, the American Widgeon, the Green-winged Teal, the Blue-winged Teal, the Shoveller, the Canvass-back, the Redhead, the Scaup, the Ruddy, the Pied, the Velvet, the Surf Duck, the Scooter, the Eider, the Golden-eye, the Harlequin, the Long-tailed, the Tufted, the Red-Breasted Merganser, the Hooded Merganser, and the Gooseander. What a noble-looking diver the great Loon seems, with his speckled robe of white and black? But amongst this splendid array of water-fowl, as I previously said, the handsomest is the Wood Duck, who builds in trees at

Sorel, Lake Erie, and other places: he is, indeed, *facile princeps*. Those feathered, slim gentry mounted on stilts, you recognize as pertaining to the tribe of the Waders: the Bittern you all have seen; many of you may not have viewed before this pretty little species, called the Least Bittern; I am indebted to a Kingston friend for him. There stands next the Night Heron, or Qua Bird: have you ever observed how those two long feathers, which grow out of the back of his head, fit in one another as in a groove? You have all read, in Charlevoix and Boucher,, that two species of Crane visited Canada—the White and the Brown Crane: Linnæus and Temmink have christened one of the species *Grus Canadensis:* and still the Crane is a Western species, and ought not to visit our Arctic latitudes except when it migrates from Florida to the Arctic wilds, for the incubation of its eggs and rearing of its young. An island, once dear to sportsmen, thirty-six miles lower than Quebec, bears the name of Crane Island. You have not forgotten the mention Horace makes of the migrating Crane—*Gruem advenam.* And shall I relate to you the nice story Herodotus tells of the manner in which the death of Ibycus, the poet, was revenged by a flock of Cranes? You will then understand why the muse-loving Greeks had such a veneration for Cranes:—

"The lyric, Ibycus of Rhegium, went to dispute at the Olympic Games the prize of poetry: he came on foot, with no other companion than his lyre, on which he occasionally struck a few soul-stirring notes. At the close of his journey musing, he lost his way in the forest. Two men rushed out of the wood and struck him. The poet fell to the earth, and cast an expiring glance towards the setting sun. At that awful moment, he saw a flock of Cranes sailing past; 'Winged travellers,' said he, in an expiring breath, 'behold me!—make known the assassins of Ibycus!' The brigands laughed at these words, stripped their victim and disappeared.

"The next day, the games began at Olympia: no Ibycus appeared. The people murmured at the absence of the bard;—his rivals commenced to sing. At that moment a

man arrived in hot haste bearing a broken lyre--all bloody and pronouncing the name of Ibycus. It was the bard's lyre, found that morning close to the corpse of the poet. A loud and deep wail was then heard in the amphitheatre: the people deplored the premature end of the young favourite of the muses; but the multitude is as easily moved to sorrow as it is to forget, and the games proceeded—the memory of Ibycus fading away. Night was closing in and would soon interrupt the amusements of the crowd, when a flock of Cranes flew over the arena; their loud notes attracted general attention: two of the crowd, in a conspicuous spot, repeated to one another, in a jocular way. 'There go the Cranes of Ibycus!' This singular remark was overheard by others: the sarcastic tone in which it was uttered, and the repulsive appearance of the utterers, all conspired to create suspicion. The murderers were arrested—questioned separately—confessed their crime, and were then and there executed; so that the avenging mission confided by the dying poet to the feathered strangers was faithfully discharged."

By long and continued efforts on behalf of some enlightened friends of agriculture, the indiscriminate slaughter of insectivorous birds in the spring and summer has been effectually stopped. You may not be hung for killing or capturing in Canada a Robin or a Tomtit, but you make yourself liable thereby to ten days of jail.

I like the old English and French custom of opening the game season by rejoicings and *eclat*. Why should not St. Hubert, the patron saint of sportsmen, have a day sacred to him in America as well as in Europe?

It is gratifying to see that if our powerful and progressive neighbours have so many things to be proud of, there is one Canadian institution which they envy us; that is, our Legislation for the protection of Fish and Game. Mr. Roosevelt (son of Judge Roosevelt), in his interesting book on the Salmon rivers of Canada, "*The Game Fish of the*

North," testifies to that fact repeatedly. As a sop to American *amour propre,* he concludes by insinuating that it is about the only sign of progress to be found "in those benighted regions known as the British Provinces," as he humourously styles them. We will allow him, unchallenged, to enjoy his illusions on this as on other Canadian subjects, for, as a clever writer has it, "Are not illusions the best part of youth?" and Mr. Roosevelt is young. I do not think it could be possible to restore to the shores of the St. Lawrence the myriads of ducks, geese, and swans, which the old writers, such as the Jesuits. in their journal, Governor Boucher, in his *Histoire Naturelle des Oiseaux, des Animaux, et des Poissons du Canada,* written at Three Rivers in 1663—for the special information of the *Grands Seigneurs* of the Court of Louis XIV., his friends—mentioned as having seen. The account of the game met by the Jesuits on the Crane and Goose Island beaches in 1632 appears so marvellous as to be mostly beyond belief. The very beach facing this city, near the *Rifle range* at Beauport, took its name, *La Canardière,* from the legions of ducks frequenting it. It is within my recollection that a Crane Island chasseur counted he had had but poor shooting if he had bagged less than one hundred *Outardes* (Wild Geese) in a season.

You are aware that the most numerous order of birds by far is the *Passeres.* It would require a great many evenings to initiate you into their habits and history. I will consequently merely direct your attention to those now before you wearing the gaudiest uniforms: there, you will remark the brightest of Canadian birds, the Scarlet Tanager, or Summer Red Bird; how gracefully his black wings do set on the surrounding red! Hot weather alone attracts him over the Canadian border from the scented magnolia groves of Louisiana and Florida. The peasant lad, meeting him in our green woods, in ecstacy at such a display of splendour, hurries home to tell his mother that he has at last seen "*Le Roi des Oiseaux,*" for such is the glorious cognomen the Summer Red Bird, during his July visits, enjoys amongst the French Canadian peasantry.

That sprightly-looking individual with a cinnamon-coloured back and wings, a white breast and long rounded tail feathers tipped with white outwardly, is the Cuckoo; his shrill note is occasionally heard in hedges round the city. Unlike his European congener, his habits as a parent are unimpeachable; you never catch him depositing eggs in other birds' nest,—foundlings at other individuals' doors; this shabby, unnatural practice may suit his Cockney Cousin, or our Cow-pen bird; but dandy, merry Cuckoo is too excellent a gentleman, too kind-hearted a fellow, to desert his offspring. We have two Cuckoos in Canada—the Yellow-billed and the Black-billed. Next to him you notice a bird encased in a sleek, lustrous, black uniform, with gold and crimson *shoulder-straps*, a veritable rifleman amongst the feathered tribe; that is the Red-winged Starling: is he not a jaunty, military-looking son of song? sporting *epaulettes*, he ought to stand well with the ladies; doubtless his name of *Field Officer* is due to their admiration of his gaudy uniform. There sits Robin Redbreast. What nice anecdotes I could tell you about him, my familiar friend, who returns each spring to nestle in a bushy evergreen under my library window, notwithstanding several murderous raids made in the vicinity, in the dead of night, by some marauding grimalkin, when, unfortunately for my feathered neighbour, the trusty guardian of the grounds, my mastiff *Wolf*, is wrapped in balmy sleep. You can understand what a lively memory birds retain of the spots in which protection has been extended to them, when I tell you that for six years past I have protected the birds building on my property, and that they have multiplied astonishingly.

There are this year upwards of forty nests of birds round me: one palm tree, next to my library window, contains the nests of no less than two pairs of Chipping Buntings, that friendly little fellow who comes in the very house-steps to pick up crumbs. Close to it stands a small soft maple tree: a pair of Black-cap Titmice have been industriously scooping a hole out of the heart of the tree for a week. From the habits of this bird, which, I presume,

is better known to you under the name of *Chickadee,* none do I prefer to see building about my garden: the quantity of insects it destroys in catering for its young is really prodigious. About two acres from this spot, another family of Chickadees seem intent on applying for a location ticket. Wilson's Snow Bird breeds amongst the grass, and is as careful about hiding the cradle of his children as the Song Sparrow. Robins' nests and Yellow Birds' nests are in course of construction all over the premises: the angle of a structure used last winter as a snow-slide, has been taken possession of by a pair of Robins.

Allow me to introduce to you a brave, indomitable bird —the King Bird (Tyrant fly-catcher); the peasantry call him *Tri-tri,* from his rapid, querulous note; schoolboys know him as the Crow-beater: observe the little orange tuft of feathers in the centre of his top-knot. Next to him you notice a bird with a beak notched like a Falcon: take my word for it, that is a sanguinary villain. Naturalists call him "The Shrike,," or Butcher Bird, from the remorseless manner in which he deals with small birds, whom he impales on thorns and tears to pieces: I wonder how he can rest at night after such enormities. Fie, fie! Mr. Shrike, you are a vile fellow!—as vile nearly as a schoolboy who *robs birds'-nests.* Do not, I pray, show your face on my premises! That grey, rough-coated bird is a Canada Jay; the lumberers and woodmen, who see him in winter rumaging round their camp, call him *Whiskey Jack:* he is addicted to pilfering; so say his enemies.

There, is a bird whom all of you recognise—the Kingfisher—Belted Kingfisher, on account of the rust-coloured badge encircling his throat and breast. To heathen mythology he is known as *Alcedo Alcyone.* Alcyone was the daughter of Eolus: being a perfect model of conjugal fidelity, she was rewarded, at her death, by being metamorphosed into a bird, and the heathen god, her father, whom I shrewdly suspect to have been in league with the clerk of the weather, arranged matters so that in midsummer, a succession of so many calms took place that our expert

fish-catcher could build her nest on the heaving bosom of the ocean, and rear her young undisturbed. This was, to say the least, a great privilege. Hence the origin of halcyon days—days of peace and prolonged security. I can guarantee this fact, *on the faith of heathen mythology!*

One of the most musical groups amongst our native birds are the Thrushes: some six or seven varieties are now displayed before you. First, the Robin, or Migratory Thrush; next, the Catbird, an excellent mimic, whom you can easily distinguish from his congeners by his ash colour; then, that beautiful variety, the Golden-crowned Thrush; the Hermit Thrush, which is attracted to the cool shades of damp woods, where he can, undisturbed, go and bathe at sunrise and sunset in some secluded, purling, limpid stream,—how oft have I watched him! One of the sweetest song birds of Western Canada is the Brown Thrush, or Thrasher: here is a good specimen—you will notice how much longer his tail is than that of the Hermit Thrush or Golden-crowned Thrush. The Wood Thrush is not very common in Lower Canada; and I am inclined to believe the sweet songster who, amongst the Canadian peasantry, is known as "La Flute"—the flute—from its metallic notes resembling the double-tonguing of the german flute, is Wilson's Thrush. The Thrush family in Canada open for young naturalists a wide field of enquiry.

That little group of long-winged individuals, you of course recognise as the Swallows, of which five species visit Canada. The first, supposed to be the real harbinger of spring and hot weather, circles over our heads, at Quebec, for the first time each year, about the 23rd of April. The Black Chimney Swallow, or Swift, who dives perpendicularly down our chimneys to build its nest, forms part and parcel of every Canadian rural home: as we never see him build elsewhere than in chimneys, the question arises, where did he build before the invention of chimneys? You can add that to the other hard problems with which your painstaking teachers try your ingenuity. This is the Pur-

ple Martin—a larger species: each day, when I pass down the Upper Town market-place, and notice the garrulous crowd of Martens twittering round the eaves of the old Jesuit Barracks, I ask myself whether they are all the grand-children of those Purple Martens whose ancestors, Alexander Wilson saw, in the beginning of this century, "in great numbers, at Quebec;"* for the memory of locality is great in Swallows as well as in other birds.

That broad-mouthed, long-winged, short-legged, dark bird, squatting on the ground, with white badges on its wings, is the Night Hawk, or Goat Sucker, *Caprimulgus*. You, no doubt, are aware why he is so persistently called

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* Another man of note, just dead, visited Quebec about 1824, the eccentric naturalist, Charles Waterton, the discoverer of the *Wourali poison*, and author of several works most amusingly and instructively writen. Charles Waterton humorously said that the principal blessings the House of Hanover had conferred on the English people were the suppression of Popery, the creation of the ing tremendous fortifications at Quebec. It will be the Gibraltar rat. Do not be surprised if the passage of his book, relating to Quebec, should contain something eccentric also:—"They are making tremendous fortifications at Quebec. It will be the Gilbraltar of the new world. When one considers its distance from Europe, and takes a view of its powerful and enterprising neghbour, Virgil's remark at once rushes into the mind,—

"Sic vos non vobis nidificatis aves."

"I left Montreal with regret. I had the good fortune to be introduced to the Professors of the College. These fathers are a very learned and worthy set of gentlemen; and on my taking leave of them I felt a heaviness at heart, in reflecting that I had no more time to cultivate their acquaintance. In all the way from Buffalo to Quebec, I only met with one bug; and I cannot even swear that it belonged to the United States. In going down the St. Lawrence, in the steam-boat, I felt something crossing over my neck; and on laying hold of it with my finger and thumb, it turned out to be a little half-grown, ill-conditioned bug. Now, whether it were going from the American to the Canadian side, or from the Canada to the American, and had taken the advantage of my shoulders to ferry itself across, I could not tell. Be this as it may, I thought of my Uncle Toby and the fly; and so, in lieu of placing it upon the deck, and then putting my thumb-nail vertically upon it, I quietly chucked it amongst some baggage that was close by, and recommended it to get ashore by the first opportunity."—*Waterton's Wanderings*, *p* 223.

Goat sucker by naturalists; it is because he never in his life sucked a Goat—never dreamed of it. It is one of those outrageous fabrications invented, by ignorance, to filch a poor bird of his good name, and which *took root* only because it was oft repeated. In the days of Olaüs Magnus, Bishop of Upsal, in Sweden, few dared to doubt but that Swallows, instead of going to Senegal and the Gold coast to spend their Christmas and Easter holidays, dived before winter into the bosom of Lakes, and hybernated under the ice till spring, with no gayer companions than a few meditative trout or other fish. This was another absurd theory, but which had many great names to support and prop it up. The Revd. Gilbert White, in his *History of Selborne*, a nicer book than which you could not read, eloquently demonstrated how absurd, how impossible such a thing could take place.

You recognize at one glance that little fairy—dipped in a sunbeam, begemmed with opals, rubys, and living sapphires—it is the Ruby-throated Humming Bird. One species only frequents our climes, though it constitutes a numerous family in South America and in the West Indies. How oft in the dewy morn have you not noticed the little sylph, ecstatic with delight, hovering over the honeysuckle and bright geranium blossoms, and inserting in their expanded corollas his forked tongue in search of insects and honey. Need I dwell at length on all his loveliness, his incomparable beauty, when you can refer to the glowing descriptions which two great masters, Audubon and Buffon, have left—Audubon's especially. In spite of his elegance of dicton, the sedentary philosoper, Buffon, must yield the palm to the naturalist who studied God's creatures on the mountains, prairies, sea shores, plains, fields and forests of our continent.

I now hold in my hand a most gorgeously-habited little songster, who pays us an occasional visit in July. His azure mantle has bestowed on him the name of *Indigo* Bird. Buffon calls him "Le Ministre," probably because he was, like the French Ministers of State, robed in blue:

our own Cabinet Ministers, as you know, on the recent visit of the Prince of Wales, chose blue for their *grande tenue officielle*. Never shall I forget one bright July morning walking in my garden, shortly after sunrise. In the centre there stood an old apple tree, bearing pink and white buds and green leaves; close to it my children had grown a very large sunflower: its corolla was then lovingly expanding to the orb of day, whose rays streamed through the overhanging canopy of dew-spangled blossoms. In the fork of the apple tree a pair of Robins had built their clay-cemented nest, in which, protected by soft hay, rested four emeralds of pure sea-green, whilst the male Robin was carolling forth his morning hymn from the topmost branch of a neighbouring red oak. I was in the act of peering in the nest, when my eye was arrested by the resplendent colours of an azure bird nestling in the sunshine on the saffron leaves of the sunflower. The brightness of the spectacle before me was such, its contrasts so striking, that I paused in mute astonishment at so much splendour. Was it a realm of dream-land spread out before me—a vision painted by a fairy! It was, my young friends, only the Indigo Bird of Canada, in his full nuptial plumage, seen amidst the bright but every-day spectacle of a Canadian landscape.

What a charming musician, the Vireo or Red-eyed Fly Catcher, during his protracted stay from May to September: scarcely visible to the naked eye, amidst the green boughs of a lofty elm, he warbles forth his love ditty from sunrise to sunset? How eagerly I watched, this spring, for the return from the South of the *Sweet, Sweet Canada bird,* the white-throated Sparrow—whose clear, shrill clarion resounds even in the depth of night! How is it he did not accompany this spring his congener, the Song Sparrow—the *Rossignol*—so dear to every Canadian heart, with its simple but soft melody?

Have any of you ever noticed the Redstart darting, like an arrow, after the small flies, then relighting on the twig, uttering his shrill *increasing* note, very similar to that of that pretty summer Yellow bird, also one of the fly-catch-

ers, as you are aware,—a family most numerous, and if not generally gifted with song, at least wearing a very bright livery. The Redstart, the male bird, is easily known by his black plumage; when he is flying, he discloses the under portions of his wings, which appear of bright maize. The female is more of an olive hue, and does not resemble at all her mate: they breed all round Quebec, and stop here about three months. It is needless for me to furnish you with a very lengthy description of the Blue Jay: you are all acquainted with his cerulean plumage and harsh note, especially before rain.

I must not, however, forget to point out to you that richly-dressed individual, wearing black and orange badges: that is the Baltimore Oriode. He visits chiefly the Montreal district and Western Canada. Black and orange, did I say? why that was the official livery of a great English landowner of Maryland, in the days when democracy amongst our neighbours was not. We have it on the authority of Alexander Wilson, no mean authority, as you know, that this brillant July visitor took its name from Lord Baltimore, on whose estates a great number of Orioles were to be seen. It is satisfactory to find that, even in Republican America, the English aristocracy is becomingly represented not only at the White House, but also in the green fields and green woods of the great Republic. The *Baltimore Oriole* is a tolerably good musician. You can see how brilliant are the colours of these Canada birds now exhibited to you!

I think you will all agree with me, in saying that no country can furnish a group of brighter ones than those now exposed to view, and composed of Canadian birds only:—the Golden-winged Woodpecker, or Rain Fowl; Blue Jay; Field Officer; Maryland Yellow Throat; Wax Wing; Indigo Bird; Ruby-Throated Humming Bird; Scarlet Tanager; Baltimore Oriole; Meadow Lark; Pine Gros Beak; Cardinal Grosbeak; Rose-breasted and Towhe Bunting.

As for song, we may safely assert, with the same Alex-

ander Wilson,* that the *Fauna* of America can compete with that of Europe: true, we have not the Skylark, nor the Blackbird; and the Robin, although very similar to him in note and habits, is still his inferior; but we have the Wood Thrush, with its double-tongued flute notes, Wilson's Thrush, the Brown Thrush, the jingling, roystering Bobolink, the Canadian Goldfinch, whose warble reminds you of the Canary. The far-famed European Nightingale has certainly met with a worthy rival in the American Mocking Bird, whose extraordinary musical powers have been so graphically delineated by the great Aububon.

My young friends,—I was thinking of introducing you into the very *sanctum* of Natural History, and the advanced hour of the evening compels me to leave you merely at the threshold. If it should so please you, we may, at some future day, resume the investigation of this subject. I thank you for your long and constant attention.

Au revoir! J. M. LEMOINE.

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* "The opinion which so generally prevails in England, that the music of the groves and woods of America is far inferior to that of Europe, I who have a thousand times listened to both, cannot admit to be correct. We cannot, with fairness, draw a comparison between the depth of the forest in America, and the cultivated fields of England; because it is a well-known fact, that singing birds seldom visit the former in any country. But let the latter places be compared with the like situations in the United States, and the superiority of song, I am perfectly persuaded, would justly belong to the Western continent. The few of our song birds that have visited Europe extort admiration from the best judges. 'The notes of the cardinal grosbeak,' says Latham, 'are almost equal to those of the nightingale.' Yet these notes, clear and excellent as they are, are far inferior to those of the wood thrush; and even to those of the brown thrush, or thrasher. Our inimitable mocking bird is also acknowledged, by themselves, to be fully equal to the song of the nightingale in its whole compass. Yet these are not one tenth of the number of our singing birds. Could these people be transported to the borders of our woods and settlements, in the month of May, about half an hour before sunrise, such a ravishing concert would greet their ear as they have no conception of."—*American Ornithology*, vol. II., p. 275.

Paper VIII.—ON THE MEASUREMENT OF HEADS IN ETHNOLOGICAL INVESTIGATIONS.

By JOHN LANGTON, Esq., M.A.

The subject of the present paper was brought before the Society, in a verbal communication, about a year ago; but I think it may be of sufficient importance to those who are engaged in ethnological investigations, based upon the forms of skulls, to place it in a more formal shape before you.

That the different races of mankind are distinguished by peculiar forms of skull, speaking generally, and with a large allowance for individual varieties, has long been admitted; and some comprehensive terms of classification have been adopted--as brachycephalic, dolichocephalic and cymbocephalic—which mark with sufficient accuracy the most conspicious variations of type which present themselves. But no man can have examined a considerable collection of skulls of the same race, without being struck with the great varieties of shape exhibited by different individuals; and though the prevailing type may be brachycephalic or dolichocephalic, yet the deviations from it will be so great, in particular instances, that an ordinary observer would be apt to think that no such decided distinctions as are made by the ethnologists can be maintained. An educated eye, indeed, will still see indications which will generally enable him to classify his specimens; and the averages of a large number of measurements will shew a tendency to conform to a particular type. But even the professed ethnologists, when generalizing from a large number of specimens, and with the aid of accurate measurements, have arrived at singularly diverse opinions as to what the characteristics of any particular race are, and as to what races have a common organization. Morton recognizes one uniform type of American skull, from the Arctic Ocean to Cape Horn, which, according to him, differs in essential particulars from those of the inhabitants of the

old world; whilst others, who have all his specimens to appeal to, and the larger experience of subsequent collections, trace as many varieties of structure in American skulls as can be found in the crania of Europe and Asia. An impartial observer, therefore, not committed to any theory, or the inventor of any imposing terms of classification, will be apt to consider the whole subject too much in its infancy to be pronounced upon with any approach to dognatism; and though he may admit that there may be a classification of which the subject is susceptible, he may be excused if he doubts whether we have as yet hit upon the proper method of establishing it.

I make no pretensions to be an authority upon ethnology; but, having been thrown in the way of persons devoted to the study, and having read a good deal upon the subject and examined many skulls, especially of our aboriginal tribes, I confess that this was about the conclusion I had come to, when the circumstance occured which gave rise to the investigation which forms the subject of the present paper. You will recollect that my friend Dr, Daniel Wilson, of Toronto, the author of Prehistoric Man, and a great authority upon skulls, was asked, in passing through Quebec on his road to England, to deliver a lecture at a Conversazione with which we concluded the Session of 1863. The subject which he selected was "Artificial cranial distortions as illustrative of Ethnology." A few days before he arrived, my friend, the Rev. James Douglas, going to be measured for a hat, was much struck with the extraordinary want of symmetry in his own head, of which he shewed me the model; and we thought that we might collect from a hatter specimens of distortions in the civilized community of Quebec, which we might exhibit in connection with Dr. Wilson's lecture upon the artificial forms of the flat heads and others. With this object, I obtained from Mr. Ashworth a very large collection of models, taken by an instrument known as the "conformateur;" and a most wonderful array of extraordinary forms it certainly presented. The old terms of trachycephalic and dolichocephalic did not begin to distinguish the various com-

plicated shapes which the heads of the customers of one hatter displayed. At first sight, I was struck with astonishment; but a little consideration shewed that these unnatural deviations of the heads from a common type arose, not so much from the heads themselves as from the nature of the instrument with which the models were taken. They were a gross exaggeration of the peculiarities of each head, and the principle of the instrument necessarily made them such. For those who may not have examined one, I will give a description of a conformateur.

Its general shape is that of a lowish crowned, broad-brimmed hat, the sides being composed of parallel upright rods, working into the solid brim with springs, whilst at the top of each rod is another rod at right angles to it, all of which converge towards a centre and together form the top of the hat. These latter rods, which form the top, are all of the same length and do not quite meet in the middle; and as the whole instrument, when at rest, forms a uniform oval, about the shape of, but rather smaller than, an average head, the ends of the rods on the top form a much smaller oval—the absolute differences between the diameters of which are the same as those of the larger one, the proportionate differences being of course much greater. On the free end of each of these top rods are sharp points, which, when the whole instrument is fitted on the head, upon pressing a spring, are driven through a piece of cardboard, and the card being cut out of the holes thus formed becomes the model I am speaking of. Thus, if the rods are each 2 inches long, upon the instrument being fitted to a head, the longitudinal diameter of which is 8 inches and the transverse diameter 6 inches, the model will have the longitudinal diameter 4 inches and the transverse one 2 inches; or, if the real diameters of the head are as 4 to 3, those in the model will be as 2 to 1; and all other differences will be exaggerated in the same way. The consequence is, that distortions, which would pass unnoticed in the natural size, become at once conspicuous in the reduced model, and strange as the shapes of the models may be,

the hats which are made from them would attract no attention from their singularity. In making the hats the process is exactly reversed: the cards are pinned down upon another machine, and horizontal rods, of the same length as the top rods in the conformateur, are brought into contact with it, and there screwed down, solid uprights which rise from the end of them form the block upon which the hat is moulded. In illustration of this exaggeration I give here some specimens of heads which in the model are conspicuously different, but when enlarged from the same models, as they would be to form the block, their several peculiarities could hardly be distinguished except by very delicate measurements, if that would suffice.

The consequences of this exaggeration were very remarkable. I have said that I brought home a large collection of the cards (between three and four hundred in all), all of them with the names of their owners written on them, and I commenced looking over them with a view of selecting specimens of singular shape, or of marked distortion. But I had not gone far before I observed that there were two well-marked types into which they were divisible, and that in almost every case the one bore a French and the other an English name. The French head was of a roundish form, much shorter in the longitudinal diameter than the English one, but generally broader over the parietal region, from which it narrowed down often very suddenly, the breadth over the forehead being generally less than in the English head. The latter was much longer and much more even in its breadth, being sometimes almost as broad over the forehead as in the parietal diameter. Mr. Douglas and I therefore dealt the whole out into two packs, guiding ourselves altogether by the shapes, which, with some few exceptions which were put into a third pack as doubtful, was almost as easy as separating clubs from spades. Upon examining the packs, fully ninety per cent of the long heads bore English names, whilst, if I remember rightly, there was not a single exception to the short heads bearing French names. We thought, also, that we could distinguish amongst the British names a

sub-type, as long, but narrower, and not so square, approaching in fact more to an oval, which bore Celtic names; but the difference was not very strongly marked. The only two German names which we met with were clearly distinguished from the other two types, being as short as the French heads, but of an even oval, without that sudden falling away from the great breadth over the parietal protuberances which marks the latter so strongly. Even minor differences could be detected. I had set aside five heads as well-marked, but rather exaggerated, instances of the French type, and, upon looking at the names, four of the five bore that of a well-known French family in Quebec. I took the shape of my own sister's head, which, except in size, was the exact counterpart of my own; and I fitted the conformateur on to two brothers—the Messrs. Russell—and although they do not bear a greater resemblance to each other than is common with brothers, the heads were absolutely undistinguishable, but very different from any others in the collection. In all these cases a family resemblance in the heads could be detected, much more marked than in the general features of the face.

When Dr. Wilson arrived and had delivered his lecture, I exhibited to the Society, as you will recollect, a selection of these heads, stating the facts much as I have given them upon the present occasion; and I afterwards went over the cards again with Dr. Wilson, with the same result. Since that time I have had a few opportunities of pursuing the investigation further, and I have adopted a rough method of shewing the average of a large number of heads, such as I lay upon the table this evening, viz., by tracing the outlines of each in pencil in the same space, so that whilst the inner and outer lines give the maximun and minimun size, the broad dark line, where the pencil has frequently gone over the same ground, indicates a rude average form of the two types of English and French.

Dr. Wilson subsequently pursued the subject further, and gave the results, amongst much interesting matter, in

a paper "On the physical characteristics of the ancient and modern Celt," read before the Canadian Institute, and published in the Canadian Journal of November, 1864. He has examined, in all, upwards of eleven hundred heads, from which he thinks that he has established a recognizable distinction between the pure Anglo-Saxon, as indicated by his name, and the Celt of either Ireland, Scotland or Wales. The former he considers to be marked by an almost uniform width; whilst the latter is much the widest over the parietal protuberances, and tapers away towards the frontal regions, giving it a sort of pear shape. He states that only two out of upwards of four hundred which he had classed as of the former type bore other than pure English names; but there appear to have been a considerable number of English in the class representing the Celtic division. To a certain extent, this conclusion of Dr. Wilson's accords with the indications of a difference between the forms of heads bearing Saxon and Celtic names, which Mr. Douglas and I thought we had perceived at Quebec; but neither then, nor in some subsequent examinations of the same kind, did I meet with any such decided uniformity in the result as Dr. Wilson appears to have found in his specimens. Moreover, I should hardly have called the Celtic head "pear shaped," but rather tending to oval, the absence of squareness being its main distinction from the Saxon head. There is another point brought out by Dr. Wilson, which, if it be supported by more extensive investigation, is of considerable interest. He found that of 70 French head forms, from a Montreal hatter, classified by names, only eleven presented the peculiar form so conspicuous at Quebec. The rest were much longer, but yet not conforming either to the Anglo-Saxon or to the Celtic type. This difference, he suggests, may have arisen from the different parts of France which supplied the original settlers; and it is known that whilst those of the Quebec District came from Normandy, the Montreal District was settled principally from Brittany. The longer type of head prevalent at Montreal would, therefore, indicate the Celtic ancestry of our present population; a result,

which harmonized exactly with the leading idea of Dr. Wilson's paper—which was to maintain the dolichocephalic type of the Celtic head, against Dr. Davies and others, who consider the trachycephalic skulls found in ancient barrows to be the true form of the head of the Celtic race.

My own subsequent investigations do not upon this branch of the subject yield exactly the same result which Dr. Wilson has arrived at. I divided a large collection of shapes, procured from Montreal hatters, according to their forms, making, as before, a third pack of doubtful cases; and then I examined the names. Many were without names or the names were illegible; but of 121 clearly bearing French names, 82 differed in no respect from the ordinary French type at Quebec, whilst 38 had been classed by me as probably British, or as doubtful; and of 152 bearing British names, 144 had been classed by me as such, and only 8 were of the short French type, or doubtful. I give in the illustration the average obtained in the rough way before indicated. If a line is drawn through the middle of the dark space, where the pencil has frequently gone over the same ground, it gives an average form for the 83 Montreal French heads which cannot be distinguished from the average Quebec type; but the 38 exceptional French heads have all the characteristics of the British type. There does, therefore, appear to be a difference between the French at Montreal and at Quebec, but by no means to the same extent that Dr. Wilson found in his specimens.

The mere fact that there should still be an unsettled dispute as to the distinctive type of the Celtic skull, when we have so many opportunities of examining the point both in living subjects and in ancient remains in so many different localities, and with various amounts of intermixture in the race, is of itself sufficient to prove that the science of the craniologist has not as yet attained to that certainty in its results which would entitle it to any very great degree of confidence. May it not be, that we have not as yet followed the best method of examining and recording the differences which undoubtedly do exist between different

races, as well as between different individuals of the same race? And may not a modification of the principle of the conformateur enable us to judge better of those differences, and to present them in a tangible shape for comparison with the observations of others? It is because I believe this to be the case, that I bring the subject under your notice this evening.

Let us consider what the methods now in use are. Certain measurements are taken with callipers, or with a tape, some of which cannot be obtained in the living subject. They generally are—the longitudinal diameter, the parietal diameter, the frontal diameter, and the vertical diameter. Then there are the intermastero arch and the occipito-frontal arch, and finally the horizontal circumference. Taken together, these undoutedly give us many important data, and when accompanied with a verbal description of remarkable peculiarities, as a flattened occiput, a receding forehead, &c., and, in selected instances, with a drawing of a skull from various points of view, they form the stock-in-trade of the craniologist; but are the data precise enough to found any large induction on? I exclude altogether from consideration the drawings of particular skulls. They can only be given in rare instances—cases, in fact, selected for some noticeable peculiarity, or presented as the type of a particular class. But the object of such an investigation is to arrive at such an average type from the examination of many skulls, not to accept of the conclusions of another, which may be biassed, as we know often happens, by a preconceived theory, like Dr. Morton's uniform American form of head. Descriptions also of individual specimens, besides their necessary vagueness, must be confined to a few cases, and, without some aid from description, the measurements themselves convey no very definite information. The horizontal circumference may be the same in a round as in a long and narrow head—the occipito-frontal arch does not tell us whether there is a receding forehead or a sloping occiput, or whether the crown of the head is flat or arched. The diameters are certainly more precise in the information they

yield, for those points at least at which they are taken, but many important particulars escape notice altogether; and it would be quite possible to find, or to model, two skulls exactly the same in all the measurements, which would yet to the eye be as unlike as any of the skulls which are selected as typical of different classes. Mere measurements in different directions, even accompanied by more or less vague descriptions, useful though they may be, can never present before us the distinctive peculiarities of any irregularly formed body. You meet a father and son, or two brothers, and you at once detect the family resemblance; but if two different observers were to describe each as minutely as you will, you would not be impressed with the same likeness, not even though they should give you certain measurements—as the distance between the outer orbits of the eyes, or from the frontal suture to the point of the chin, or the arch formed by carrying a tape round from the cheekbones under the chin. The peculiar resemblances of which the family likeness comes to, would altogether escape you, if you followed such a process; and it is a family likeness which we strive to detect in the skulls of the same race, and which mere measurements will never, in my opinion, adequately present before you. You want to have before you ALL the peculiarities of shape, in order to select those which vary in different individuals, or which are common to a large number—you want in short, if you can obtain it, a section of the skull in several different directions. Now the conformateur gives you this in one direction, with this difference only, which is not without its advantage, that all the peculiarities are exaggerated. It gives, or might be made to give, the exact measurement, not in one, but in all diameters in the one plane to which it relates; but as the absolute differences are represented on a scale much smaller than life, they are very much exaggerated, and a trifling peculiarity becomes noticeable which would not be detected by any but the most precise measurement, even if this happened to be taken in a right direction. It is much upon the same principle that an engineer, in giving a section of a line of country for a rail-

way or canal, makes his elevations on a much greater scale than his horizontal plan. It is not a true picture of the face of the country; but the facts are all there, if you have the key to the exaggeration, and they are conspicuous to the key to the exaggeration, and they are conspicuous to and embankments in a way that he could hardly accomplish from an array of figures alone. So it is with many other branches of science, where a series of numbers are represented graphically upon some scale, and the eye can then detect the law which they follow, in a way which it would be very difficult to accomplish by merely studying the figures themselves. It is the same with the models produced by the conformateur. The eye at once detects a certain character, a sort of family resemblance amongst a large number of models, which it would be vain to look for in discussing long columns of figures; and if an observer can do this with his own specimens, he may very readily communicate the copies (even on a smaller scale and therefore in more exaggerated proportions than those produced by our conformateur), or he may shew an average shape by the method I have adopted, copies of which may be multiplied by photography or lithography. Such an average graphically obtained would, I feel convinced, convey much more information than the names now in use, brachycephalic, dolichocephalic, kymbocephalic, scaphocephalic, platycephalic, sphenocephalic, and a host of others as learned and as vague.

The instrument must undoubtedly be modified for scientific purposes; there should be more sections than one, and we must be sure that the scale is uniform in all the instruments used, if the results obtained by different observers are to be compared. The most desirable sections, besides the horizontal one, would be the occipito-frontal one, and one from one *meatus auditorius* to the other. With such an instrument it would be difficult to retain the principle of the conformateur, which pricks out the reduced model whilst the machine is on the head. Our instrument-makers would soon devise the most convenient form; but the one which suggests itself to me would be a solid circle or oval for the horizontal section, with a

semicircular rim fixed perpendicularly to it for the occipito-frontal section and another, sliding perpendicularly upon it, which could be moved so as to bring it in a line with the ears. In these solid rims would fit the rods, all directed to the centre of the machine, sliding in and out with springs. The fixed points, the frontal suture and occipito process for the one of the upright rims, and the orifice of the ears for the other, would not necessarily lie in the plane of the horizontal rim, so that there should be a prolongation of the two upright ones to mark those points. The machine being fitted to the head, the rods would be clamped so as to retain their position, and their ends would give the true sections of the head in the three directions. To obtain the model on the reduced scale, within each rod there might be a smaller rod, which could be driven out by a spring exactly two inches long (or any other length selected). and from the ends of those the exaggerated section could be drawn. This is only a rough idea of the kind of instrument which might be constructed, in which experience would doubtless suggest improved modifications. My object is only to advocate the principle of giving sections instead of diameters and arches, and of preventing exaggerated copies of the sections, as being much more likely to attract attention to important peculiarities.

APPENDIX.

REPORT OF THE COUNCIL

OF THE

Literary and Historical Society of Quebec,

FOR THE

YEAR ENDING 31st DECEMBER, 1865.

THE Council has the honor to submit the following Report of the general progress of the Society during the past year:—

The long list of members laid before the Society at its Annual Meeting, has been considerably reduced by striking from the roll all who were in arrears, and who refused to pay, and by the loss of over thirty members, who removed to Ottawa with the Government. To compensate for this, there have been added twenty-four new associate members; and sixteen were proposed, at the last stated meeting, to be balloted for to day. Our present number of associate members is 116. Two corresponding members have been elected, viz.,—Professor P. C. Sinding, and Com. Fortin; and one honorary member—the Abbé Brunet.

The stated meetings have been regularly held, and more than usually well attended. The following papers were then read before the Society:—

Jan. 18.—BY A. HARVEY, ESQ.—"On the occurrence of Gossamer in Lower Canada."

" BY J. LANGTON, ESQ.—"On the form of skulls as distinctive of different races."

Feb. 1.—BY S. STURTON, ESQ.—"On Specific and latent heat."

" 15.—BY REV. J. DOUGLAS.—"On two Egyptian mummies."

March 15.—By H. Williams, Esq.—"On the Copper Mines of Lower Canada."

April 5.—By Prof. P. C. Sinding.—"On the ancient Scandinavians."

" 19.—By Prof. P. C. Sinding.—"On the Schleswig-Holstein question."

May 1.—By W. J. Anderson, M.D.—"On Animal Magnetism."

" 17.—By E. T. Fletcher, Esq.—"On the secular changes of the Magnetic Declination in Lower Canada, from 1790 to 1850."

" 31.—By Prof. P. C. Sinding.—"On the division of time."

Nov. 15.—By Rev. J. Douglas, Vice-President—"Opening address."

" 29.—By W. J. Anderson, M.D.—"On the coal-like substance, or altered bitumen, found in Fort No 3, at Point Levi."

Dec. 6.—By J. M. LeMoine, Esq.—"On the history of Literature." (in French.)

Papers are promised for all the remaining stated meetings of the winter. Several of them are by French members who have lately joined, and who, we ardently hope, are the precursors of many others, actuated by the same aims as ourselves, and who will be willing to cooperate with us in prosecuting them.

Another number of the Transactions has been published, forming the 3rd part of the 1st vol. (New Series) The 4th part is being published, but on a different and, the Council believes, more advantageous system than that herefore pursued. The papers appear first in the columns of the *Quebec Gazette*, and are then reproduced in pamphlet form. By that means we reduce the cost of publishing more than one-half, and give greater currency to our proceedings. The same plan has been adopted in the publication of our Historical documents, of which it is expected there will be a small volume completed before the close of the year.

The original arrangement with Morrin College expired in November, and it was then agreed that, as it was uncertain whether the College would continue to occupy the present buildings, the Society would consent to the connection being dissolved at any time, on re-

ceiving three months' notification. The College, however, has released them for another year, and desires to retain the existing relation for that period at least. We, on our part, had no wish to sever a connection which has been productive of much benefit, and has worked so harmoniously.

The Library continues to be widely used. 873 books and periodicals are entered as having been taken out during the year. But this is far from representing the full extent of its utility; for a glance at our table, and the incomplete files of periodicals, show the extent to which the library rules are disregarded, and call for some amendment of our regulations in this matter.

The Museum is steadily growing.

The Treasurer's Report shows the state of our finances to be good.

For nearly two years there has been affiliated with this Society a branch of the Entomological Society, which has held its meeting monthly in our rooms, and stocked for the Society a cabinet of entomological specimens of great beauty and interest.

Although the Society has sustained a heavy loss in the departure of the Government, we look forward with confidence to the future. So many new members have been elected, and so hearty a determination has been shown to work vigorously and maintain its character, that we have no fears lest failure and decline succeed the prosperity of the last few years.

REPORT OF THE LIBRARIAN

OF THE

Literary and Historical Society of Quebec,

FOR THE YEAR 1865.

THE undersigned, before surrendering his trust into the hands of the Society, begs to report as follows.—

The duties devolving on him, as custodian of the books and manuscripts of the Society during the last twelve months, have been comparatively light; the late period of the year at which the Provincial grant was received leaving little time to select new books. The addition to the books has consequently been inconsiderable.

The Librarian having thought it incumbent on him to urge the Society to devote a portion of the funds in the hands of the Treasurer to the publication of manuscripts relating to the early history of the country, the Society unanimously supported him in his efforts; and three important additions to our publications have in consequence taken place, on terms most advantageous.

The undersigned has also brought under the Society's notice the dilapidated state of several volumes, requiring new bindings or repairs to the old binding; and he is glad to state that steps have been taken, in compliance with the expressed views of the Directors, to remedy this evil. The principal Reviews and Magazines have also been bound; and steps ought to be taken to get back numbers, which may be missing.

The undersigned has made an energetic appeal to the French Canadian gentlemen, through the press, to join the Literary and Historical Society, extending hopes that the Society would devote

still further funds to publish documents relating to the History of Canada; and he is happy to be in a position to say that the appeal has met with a responsive echo.

Amongst the attractions to the general public, frequenting the Society's rooms on lecture days, the undersigned fully believes that the procuring of a large historical Album of the celebrated Canadians and Americans, together with an Album of Canadian Scenery, would tend to enhance the interest of visitors; and that a plan could be devised by which this idea could be carried out at very little cost

The undersigned begs to call the attention of the Society to the fact, that several important documents for the History of Canada exist in the archives of Halifax, according to the statement of Dr. Anderson; and that by corresponding with the proper authorities of that city, these documents might be made available to us.

The whole respectfully submitted.

J. M. LEMOINE.

Quebec, 10th January, 1866.

MUSEUM REPORT

OF THE

Literary and Historical Society of Quebec,

FOR THE YEAR 1865.

YOUR Curator has to report that during the past year there have been added to the Museum fifty-eight geological specimens, nineteen authenticated and rare eggs of Canadian birds, at a total cost, for specimens, stands, and stuffing the same, of $211.60

Your Curator was informed, in 1864, that Sir W. Logan would send us a collection of Canadian minerals. Not having been in office this year till the last few weeks, he has had no opportunity of enquiring respecting them; but it shall be attended to this summer.

A perfect collection of Canadian minerals is a great desideratum, and your Curator thinks that no reasonable pains or cost should be spared to secure the same.

The department of Ornithology is so far advanced, that your Curator hopes you will sustain him in completing the same as soon as possible, in order that they may be properly classified.

Your Curator respectfully thanks the various parties who from time to time have assisted him by donations.

S. STURTON,
Curator of Museum.

Quebec, January, 1866.

DONATIONS TO THE LIBRARY

OF THE

Literary and Historical Society of Quebec,

DURING THE YEAR 1865.

A MS. document, relating to the death, burial and sword of Montgomery—from Dr. Rees.

Etat présent de l'Eglise.

The North Kingdom—from Mr. Plante.

Memoire de Montcalm—from Mr. LeMoine.

Journal and Proceedings of the Boston Natural History Society—from the Society.

Catalogue of Plants—from the Abbé Brunet.

An old letter from Lord Dalhousie to the Society—from J. Langton, Esquire, M.A.

History of Scandinavia; 1 vol. 8vo.—from Professor Sinding, the Author.

United States Diplomatic Correspondence; vols. I., II., III. and IV. —from the Consul of the U. S. A.

DONATIONS TO THE MUSEUM

OF THE

Literary and Historical Society of Quebec,

DURING THE YEAR 1865.

Specimens of Copper Ore from Harvey Hill Mines—from Herbert Williams, Esquire.

Two Coins—from W. White, Esquire, Post-Office Department.

5-Cent United States Paper Currency—from A. Harvey, Esquire.

Canadian Fossils—from G. J. Bowles, Esquire.

Specimen of Iron Ore—from M. Miller, Esquire.

Spanish Grass, used for paper-making—from G. T. Cary, Esquire.

Twenty Stuffed Birds—from Mrs. Dixon, of Bowmanville; presented through R. S. M. Bouchette, Esquire.

A number of Fishes and Crustaceans from the Gulf—from P. Fortin, Esquire, Corresponding Member of the Society.

Lime Incrustations from the north shore of Newfoundland—from Capt. Aocah, Gaspé.

A Star Fish—from A. Holliday, Esquire.

An Opossum—from the Smithsonian Institute, Washington.

Dr. **G. J. Bowles, Treasurer, in account with the Literary and Historical Society.** **Cr.**

1865.		
Jany. 1.—To Balance from last year:—		
General Fund	$238 65	
Historical Fund	209 17	
		$ 447 83
March 1.—To Interest from Savings' Bank		9 10
Sept. 27.—To Parliamentary Grant		750 00
Dec. 30.—To Sale of Transactions		2 50
" To Subscriptions received from Members		306 00
		$1515 42
1866.		
Jany. 1.—To Balance on hand, deposited in Quebec Provident and Savings' Bank		$ 670 68

1865.		
Dec. 30.—By Books, Periodicals, and Binding		$ 197 21
" By Specimens for Museum, and mounting same, and Cases		211 60
" By Historical Documents published		20 00
" By Printing Transactions		159 55
" By Stationery, Advertising, &c		40 49
" By Insurance		25 00
" By Refreshments at Meetings		49 07
" Secretary's Salary, Gas, Postage, and other expenses		126 14
" Commission on collecting Subscriptions		11 50
" Balance carried to next year:—		
Historical Fund	$189 17	
Life Members' Fund	54 65	
General Fund	427 04	
		670 86
		$1515 42

Quebec, 1st January, 1866.

GEO. JNO. BOWLES,
Treasurer.

TRANSACTIONS

OF THE

Literary and Historical Society

OF QUEBEC.

SESSION OF 1866-7.

NEW SERIES.—PART 5.

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TRANSACTIONS

OF THE

Literary and Historical Society of Quebec.

SESSION OF 1866-7.

PAPER I.—ON SOLAR SPOTS.

BY COMMANDER E. D. ASHE, R. N., F. R. A. S., PRESIDENT.

(Read before the Society, 7th November, 1866.)

IN opening the Session of the Literary and Historical Society for this winter, you will allow me to congratulate you on our prosperity. Never since its foundation have we had so many members, nor were the funds ever in better condition; and I trust, by making additions to our Library annually of the most valuable books, we shall be able to offer to the Student of Literature attractions equal to that of any other Institution in Canada.

Since we last met, our land has been invaded by a "band of fierce barbarians," which was driven back by a handful of young men unaccustomed to arms; but, nevertheless, they gave a very fair sample of what Canadians would do, if called upon to defend their homes.

But the most important event of the year, is the successful laying of the Telegraph Cable between the old and new world, and the still more wonderful event of picking up the Cable of last year, that was lost in the ocean, at a depth equal to two miles; and if the "Great Eastern" never does anything else, still she has been the means of accomplishing the greatest wonder of the age.

I may also mention that the contest between guns *versus* armour is still going on. Now, the target is unable to be penetrated by any projectile; and, again, a gun is made that goes through anything that is opposed to it. Then, Her Majesty's ship "Warrior" is covered with an armour that defies all missiles; and, lastly, the Woolwich gun is made that throws a chilled shell that penetrates and knocks to pieces the strongest armour that at present can be carried by a ship. What will follow, who can say? *Punch* remarks, that we once threw red-hot shot at our enemies, but now we throw chilled iron.

Before reading my observations on "Solar Spots," it will be requisite that I should first give a general outline of what is known on the subject, and, in so doing, I quote from the "Researches on Solar Physics," by Warren de la Rue, Esq., and gentlemen of the Kew Observatory:—

"We are first indebted to Gallileo, if not for the first "discovery of sun spots, at least for the first attempt to "ascertain through their means the period of rotation of "our luminary.

"The next great advance in solar physics is due to "Alexander Wilson, Professor of Astronomy at Glasgow, "who, in 1773, communicated a paper to the Royal Society "describing certain phenomena with regard to spots, "which in his opinion, and in that of many others, appear "to indicate that spots are cavities in a luminous photo-"sphere which surrounds the sun. The accuracy of this "conclusion has recently been questioned; but whatever "may be said regarding the theory, there can be no doubt "regarding the importance of the fact that was first "revealed by Wilson.

"The next step is due to Hofrath Schwabe, of Dessau, "who has shown, as the result of nearly forty years' labo-"rious observations, that the number of spots which break "out on the sun's surface is not the same from year to "year, but has a maximun about every ten years—a "remark which led General Sabine to observe that the "various epochs of maximum spot frequency were also "those of maximum magnetic disturbance on our own "globe.

"Carrington is the next observer who has greatly ex-
"tended our knowledge of this subject. In a large and
"most remarkable work recently published, and contain-
"ing the result of many years' observations, he has
"shown that sun spots have a proper motion of their own,
"those near the solar equator moving faster than those
"near the Poles; and he has also interesting remarks on
"the distribution of spots in solar latitude for different
"years. In addition to these new facts, he has furnished
"us with very accurate data regarding the sun's rotation.

"We ought also to mention the discovery by Dawes ,that
"what is regarded as the umbra of a spot, consists in
"many cases of two well-defined and separate parts, the
"exterior part being less luminous than the interior.

"But there is another phenomenon connected with our
"luminary, not less curious than solar spots. We allude
"to the red flames, or protuberances, which are seen to
"surround the sun's disc on the occasion of a total eclipse.

"We may be allowed to mention here that very lately
"Mr. James Nasmyth, during the course of his observa-
"tions of the sun's surface, has come to the conclusion
"that when circumstances of observation are very favour-
"able, the whole surface will be found to be composed of
"separate luminous bodies, of great similarity of figure,
"interlacing one another; and he has given the name of
"'Willow Leaves' to those appearances. The existence
"of these is still disputed: but some of our best observers
"in this country have seen them under very favourable
"atmospheric conditions, and they have been seen more
"frequently by Secchi and other Italian observers."

The questions to be answered by the "Researches on Solar Physics," are—

1. Is the umbra of a spot nearer the sun's centre than its penumbra? or, in other words, is at a lower level?

2. Is the photosphere of our luminary to be viewed as composed of heavy solid, or heavy liquid matter? or is it rather of the nature of a cloud?

The telescope with which I made my observations has an aperture of eight inches, nine feet focal length, mounted equatorially and driven by clock-work—power used varied from 100 to 600.

I had frequently examined the surface of the sun with a small glass by Dolland, and I admit that, without reasoning on the subject, but merely from the appearance of the spots, I was wholly impressed with the received opinion—that I was looking down upon the dark body of the sun through the bright envelope that is supposed to surround our luminary. However, the moment I observed the sun with an aperture of eight inches, the appearance was completely changed, and the spots, instead of caverns, now appeared to be matter floating on its surface.

I considered that I had nothing whatever to do with accounting for how it got there, but simply to state what the opinions of eminent astronomers that have been expressed on the subject, but to make and collect observations, and, if possible, to find out any general law by which they are governed; and, after two years' close attention, I find—

1st. That, as a very general rule, the spots are first formed on that side of the sun which is farthest from the earth, and that they are first seen on the limb, and then, by the rotation of our luminary, cross his disc.

2nd. That a spot not unfrequently consists of a round, black nucleus, without penumbra. The nucleus is rarely of the same degree of blackness, some parts being much lighter than others. The penumbra forms afterwards and enlarges, and always, when viewed with a high power, appears to be broken up into detached pieces.

3rd. The nucleus divides generally into two large pieces, and very often these pieces are again subdivided.

4th. These pieces have a motion among themselves,—that is, without altering their respective shapes, they alter their relative positions to each other.

5th. The nucleus and penumbra gradually become lighter and fade away.

6th. Sometimes the nucleus is surrounded by a border very much brighter than any portion of the sun's surface.

7th. Occasionally in the middle of the nucleus is seen a bright speck, as bright as the luminous border.

If the spots are openings in a bright envelope whose thickness we may suppose to be about one-thirtieth the diameter of the sun, then the perspective view of such an opening, when central, and at 30° and 60° from the central line, would appear as shewn in Plate 1, fig. 1.

Refraction would tend to displace the nucleus in the penumbra; but as it is only the medium that fills the cavity (and not that which surrounds the sun) that can have any effect, and as we may take it for granted that the medium that fills the cavity is of a very high temperature, I think that refraction may safely be left out in arriving at a general solution of the question, "Are spots cavities in a bright envelope?"

Admitting that these supposed openings are formed by hurricanes, causing an upward or downward rush of a medium, that breaks and forms openings in this envelope, and therefore these cavities may have any inclination to the vertical, then no matter how the openings are inclined; if it is favourable for seeing the bottom of the cavern in one position, it will be unfavourable for seeing it in another, and the view of a spot must more or less follow the rules of perspective and go through the different phases as shewn in Plate 1, fig. 1. And it would be utterly impossible to see the nucleus of a spot first on one limb of the sun, and then keep sight of it until it reaches the other limb, and in both cases not only to see the nucleus, but also to see the penumbra equal on both sides of the nucleus, if the spots were cavities.

I will now shew drawings of some spots that will illustrate some of the above remarks.

On Thursday, 12th April, 1866, a large spot was seen near the limb of the sun, as shewn in Plate 1, fig. 2, sur-

rounded by penumbra which appeared broken up into detached pieces, and although the spot was only a few hours from the limb, yet the penumbra was about equal on both sides of the nucleus. The nucleus appeared in two separate pieces, with a little piece alongside.

Friday, 13th.—Spot appeared as shewn in fig. 3. Two islands, *a* and *b*, are of much lighter color than the larger pieces of nucleus.

Saturday, 14th.—The large spot appears as shewn in Plate 2, fig. 1; but, strange to say, the island *b* has floated outside of penumbra, leaving a clear channel through the penumbra where it has floated out.

This observation I consider most important. And a very similar occurrence was seen by R. C. Carrington, Esq.—(*See* Monthly Notices, vol. xv. page 177.)

Monday, 16th.—The penumbra appears to have cleared away between the nuclei, the upper piece is greatly reduced, and the lower piece is divided into two; but the island *b* is still intact, and the island *a* appears to have broken into two; there are three detached pieces floating away from upper part.
—(Fig. 2.)

Tuesday, 17th.—The spot has completely changed its character and a portion of nucleus has broken into pieces, and these detached pieces are distributed about.

Wednesday, 18th.—Spot slightly altered, being much smaller, and the detached pieces at the end appear as mere stains, without any appearance of closing up, but rather to have faded away.

Observations of this spot were taken until the 23rd, but as no striking peculiarity occurred, I pass on to August 8th when a spot appeared, contrary to general rule, on the side of the sun nearest the earth. The penumbra is radiated, and on one end of the nucleus appears a bright spot as if it were burning, and also one portion of the nucleus is of much lighter color than the rest. There are outlying small specs, which I have not drawn,

Friday, 10th August.—Small specs gone, and light piece of nucleus has floated on to the edge of penumbra.—(Fig. 2.)

Saturday, 11th August.—The part that was on the edge of penumbra is now clearly outside. There are some outlying specs.—(Fig. 3.)

Thursday, Sept. 20th.--After some days of bad weather, I saw this spot well on the disc.—(Plate 3, fig. 4.)—

Saturday, 22nd.—Not much changed; the triangular piece not quite detached.—(Plate 4, fig. 1.)

Monday, 24th.—The two parts have closed up. The nucleus is nearly round, with one part of the nucleus much lighter than the other. There are three small pieces of penumbra detached.—(Fig. 2.)

This spot was first seen on the 1st, and was remarkable in having its penumbra much lighter than is generally seen. On the 4th, a part of penumbra appeared to have been broken off, and there are pieces, at a short distance, that look very much like the part broken off, which appears to have floated away.—(Fig. 3.)

This spot had detached pieces which are now mere specs, and, as I have long thought, are assuming the appearance of granulations, which cover the surface of the sun. Friday, 5th.—The only change appears to consist in a bridge having formed near the middle, and the piece that floated away is not to be seen.—(Fig. 4.)

In referring again to the "Researches on Solar Physics," published by the Officers of the Kew Observatory, we read that they have carefully measured the position of the nucleus with regard to the penumbra of a spot, when in different positions of the sun's disc—three positions to the left of central line, and three positions to the right of central line—and tabulated them in columns, shewing the penumbra is in excess on the side that would shew that the nucleus is further from the surface of the sun than the penumbra; and they sum up in the following words:—"The " whole number of cases observed is 605; excluding there- " from 75, where the penumbra is equal on both sides,

"there remain 530; of which 456 are for, and 74 against, "the assumption that spots are cavities in the sun." Now, the excluding the 75 cases where the penumbra is equal on both sides, is simply a mistake; for if 75 spots crossed the sun's disc with penumbra equal on both sides, then there were 75 cases that did not shew any appearance of a cavity and those 75 cases must be put on the other side, and the case will stand thus—for the assumption, 456; against it, 149.

But when we come to examine these 456 cases, there is not one that follows any law of perspective; and we might have expected that, out of that large number, at least one would have crossed the sun's disc, gradually assuming that appearance which, if they are cavities, we might naturally expect to see. But, as an illustration of a case, which it would be almost impossible to account for on the cavernous view of the case, I will take spot No. 361 of the Kew Catalogue, which was observed oftener than any other spot.

The amount of penumbra towards the right being equal to unity, that towards the left is equal to			The amount of penumbra towards the left being equal to unity, that towards the right is equal to		
Within 30° of left limb.	Between 30° and 60° of left limb.	Within 30° of central line.	Within 30° of central line.	Between 30° and 60° of right limb.	Within 30° of right limb.
Aug19th 20th	Aug21st 22nd	Aug23rd 24th	August 26th	August 28th	Aug29th 30th
2.0 2.0	1.3 1.2	1.1 1.1	0.9	0.9	0.6 0.8

We may suppose that the spot crossed the central line on the 25th, and penumbra should begin from that date to increase on the right of the nucleus, but instead, it gradually gets less; and although there are irregularities between the 29th and 30th, still the nucleus up to that date moves gradually in one direction.

But the observations and opinions of those who advocate the cavernous view of the case, are most unsatisfactory.—*See* Observations on Solar Spots, by Rev. F. Howlett: Monthly Notices, vol. xxii, page 7.

My own opinion is, that the spots are formed by meteor planets falling into the sun, and after they have melted and spread out they become visible. The penumbra is the dross and the nucleus the molten mass that splits and cracks into pieces.

Let us suppose that there are innumerable small asteroids, or small meteor planets, that revolve in orbits, whose inclination to the sun's equator vary from about 27° south to 30° north, Now, as the catastrophe of falling into the sun would happen at their perihelion, this in conjunction with the sun's rotation on its axis, would produce a zone or belt, to which the spots would be confined. Then, such being the case, it naturally follows that there should be a maximum and minimum period, according to the conjunction of their periodic times.

Granting that, there is a circle of corpuscles interior to the orbit of Mercury, which, according to Mr. Le Verrier, will fully account for the perturbations of that planet, and therefore probably does exist.

I need not refer to the many well-authenticated observations of dark bodies having crossed the disc of the sun, some of which most probably were planetary bodies, as these are not the source of solar spots; but we may suppose that there are countless planetary bodies whose diameters do not exceed 120 miles,—therefore, when crossing the solar disc, they would not be visible until they had melted and expanded into a large surface. Now, it is probable that a molten mass of metal, four yards thick, floating on the surface of the sun, even at a white heat, would appear as a dark body; and a planet of 100 miles diameter would cover a space four yards thick, equal to two hundred and thirty millions of square miles—very much larger than the nuclei of ordinary spots. It is, therefore, possible for the spot to be derived from this source.

But I fancy that our sun is a nebulous star, and that the nebula consists of much smaller atoms, which are seen as the zodiacal light, and that they are falling on the sun as fast as flakes in a snow-storm, giving heat and energy to our luminary, and are seen as the granulations which

cover the surface. And as a chicken lives on the yolk of the egg before it is hatched, so our sun may be living on its surrounding nebula until another phase in creation takes place.

The idea of the heat of the sun being kept up by matter falling into it, is ably advocated by Professor Tindal, and much strengthens the supposition.

Now, what would be the consequence and probable appearance of a small asteriod falling into the sun? At first it would not be visible; but, after it had come to the surface and spread out, it would appear as a round, black nucleus without penumbra; then, after awhile, the dross would form round the sides, and if the surface was in a great state of agitation, then we might expect that the dross or penumbra would be separated from the mass interval; it certainly might be expected that after the planet had melted into a level surface, the intense heat would split it and shew the bright surface of the sun through it; and, finally, the nucleus would fade away, leaving only dross or penumbra, which would ultimately be indistinguishable from the mottled appearance of the sun's surface.

This is the general course that a spot takes—not that any exception to the general rule would be at all fatal to the argument.

As Venus and the Earth are the principal disturbing forces, I have no doubt that the position of these bodies will be found mainly to determine the side of the sun that the spots are formed on.

In conclusion, I may say that I am preparing to enter into "Solar Photography," when I hope to give drawings of our luminary for a large portion of each year.

PAPER II—ON CANADIAN HISTORY and BIOGRAPHY, AND PASSAGES IN THE LIVES OF A BRITISH PRINCE AND A CANADIAN SEIGNEUR.

BY DR. W. J. ANDERSON, L.R.C.S.E., VICE-PRESIDENT.

(Read before the Society, December 19th, 1866.)

In an address delivered at Fort Popham, Mr. McGee, in speaking of Canada, used the following language:—"France was ruled by a policy strictly martial to the last; and though Richelieu, Colbert, De LaGallissonière, and other supreme minds, saw in the 'New France' great commercial capabilities, the prevailing policy, especially under Louis XIV., was to make and keep Canada a military Colony." And Parkman, in his "Pioneers of France in the New World," says:—"These banded powers, pushing into the wilderness their indomitable soldiers and devoted priests, unveiled the secrets of the barbarous continent, pierced the forest, traced and mapped out the streams, planted their emblems, built their forts, and claimed all as their own. New France was all head! Under Knight, Noble, and Jesuit, the rank, lean body would not thrive. Even commerce wore the sword, decked itself with badges of nobility, aspired to forest seigniories and hosts of savage retainers. Here was a bold attempt to crush under the exaction of a grasping hierarchy, to stifle under the curbs and trappings of a feudal monarchy, a people compassed by influences of the wildest freedom—whose schools were the forest and the sea, whose trade was an armed barter with savages, and whose daily life a lesson of lawless independence. But this fierce spirit had a vent. The story of New France is from the first a story of war—for so her friends believed--with the adversary of mankind, himself; war with savage tribes, and potent forest commonwealths, and with the encroaching powers of Heresy and England. Her brave, unthinking people were stamped with the soldier's virtues and the soldier's faults; and in their leaders

were displayed, on a grand and noble stage, the energies, aspirations and passions, which belong to hopes vast and vague, ill-restricted passions, and stations of command. The French dominion is a memory of the past, and when we wake its departed shades, they rise upon us from their graves in strange, romantic guise. Again their ghostly camp-fires seem to burn, and the fitful light is cast around on lord and vassal and black-robed priest, mingled with wild forms of savage warriors, knit in close fellowship on the same errand. A boundless vision grows upon us, an untamed continent; vast wastes of forest verdure; mountains silent in primeval sleep; river, lake and glimmering pool; wilderness oceans mingling with the sky. Such was the domain which France conquered for civilization. Plumed helmets gleamed in the shades of the forest, priestly vestments in its dens and fastnesses of ancient barbarism. Men steeped in antique learning, pale with the close breath of the cloister, here spent the noon and evening of their lives, ruled savage hordes with a mild paternal sway, and stood serene before the direst shapes of death. Men of courtly nature, heirs to the polish of a far-reaching ancestry, here with their dauntless hardihood put to shame the boldest sons of toil."

Here is the portrait and there stands the bust of the Pilot of St. Malo—the skilful and intrepid mariner, Jacques Cartier; his resolute countenance gives us "assurance of a man" bold and keen, with a spirit not apt to quail before the wrath of man or of the elements. He stands first among the Canadian immortals as the discoverer of Canada, and first in the estimation of all French Canadians. Yet, after the lapse of two centuries, the dispassionate student of history must note, that Canada first presented herself to him as a magnificent country, inhabited by a friendly, hospitable, and confiding people, who looked up to the stranger as of a superior and beneficent race; that he unjustifiably abused their confidence by the treacherous abduction of Donnacona, " The Lord of Canada," and his nine attendants. This was the great error of his life. Another, almost as fatal, was the mode of

colonising the country, by his third expedition with Roberval. The commission set forth the objects of the enterprise viz.,—discovery, settlement, and conversion of the Indians—men without knowledge of God, or use of reason. The machinery of conversion was questionable, since he was empowered by the same commission to ransack the prisons for thieves and other malefactors, to complete his crew, and strengthen the colony.

Can we be surprised that on his arrival in Canada, four years after this outrage, with only one of those whom he had abducted, and accompanied as I have described, he found a distrustful, if not a hostile people; and that, on the failure of his high hopes, he returned to France a disappointed man—reporting "a rigorous climate, a savage people, a fatal disease, and a soil barren of gold," and carrying, as his sole trophies, a few quartz diamonds from Cap Rouge, and some sham gold from the slates of the adjoining rocks. "Thus pitifully," says Parkman, "closed the career of this noted discoverer. His discoveries had gained him a patent of nobility. He owned the seignorial mansion of Limoilou, a rude structure of stone, still standing. Here, and in the neighbouring town of St. Malo, where he also had a house, he seems to have lived for many years." Other writers, however, state, that Cartier died soon after his return, having sacrificed health and fortune in the cause of discovery. He left no descendants to inherit his name and fame; but I have heard our distinguished fellow-colonist, Mr. G. E. Cartier, say, that his family claimed descent from a brother of Jacques Cartier.

Some six years after the return of Cartier, the two Robervals and an enterprising company of young men, sailed for Canada, but they were never afterwards heard of, and they were supposed to have perished at sea. "With these two," says Charlevoix, "fell every hope of an establisment in America." In 1547 the Robervals were lost, and half a century elapsed before the next great actor appeared on the stage of Canadian history; but in 1604 Samuel de Champlain, of a noble French family, and an officer al-

ready distinguished in the royal navy, set out on his first voyage to New France, thus commencing a connexion which continued almost without interruption for nearly thirty years; during which he conducted seven expeditions from France to the infant colony, and made many and great discoveries on this continent extending to the Far-west. In 1608 he founded Quebec, near the spot where Cartier had built his fort in 1541; and now he committed the great error of his life. To influence Indian councils, to hold the balance of power between adverse tribes, might have been a policy worthy of a statesman, and might have resulted in reciprocal benefit; but when he embroiled himself in Indian warfare, by personally taking the part of the Hurons and Algonquins against the Iroquois, he sowed the seed which produced a prolific crop of troubles to the colonists, bearing havoc and flames to unborn generations.

In 1610 he made his fourth voyage, and founded Montreal.

In 1615 he made his fifth voyage, when he was accompanied by four Recollet Fathers—the commencement of what he considered the vital principle of propagandism, to which, ever after, the military as well as the commercial character of the colony were subordinated. In 1620 he brought his family to Canada. Up to this time no child of French parents had been born in the colony; but in 1621, on the 20th of May, a son was born in Quebec, to Abraham Martin and Margaret Langlois, who was christened 'Eustache.'

In 1627 the Company of One Hundred Associates was projected by Richelieu, and approved by Champlain. This Company engaged to supply settlers with food,clothing and implements for three years and then give them sufficient land to support themselves, cleared to a certain extent; but all must be natives of France, and no strangers or heretics were to be permitted to immigrate. In 1628 Champlain had the mortification to be compelled to surrender Quebec to the Kirke expedition, and was carried a prisoner to England; the population of the city at the time being only one hundred and five. In 1633 he had the happiness to return to Canada.

Champlain is universally acknowledged as the father of New France: he embodied her religious zeal and romantic spirit of adventure, and before the close of his career she took the posture which she held the day of her death, purged of heresy, and in the one hand the crucifix, in the other the sword. His zeal for the propagation of the faith was so great that he said--"The salvation of one soul was of more value than the conquest of an empire." In Champlain alone, says Parkman, was the life of New France! By instinct and temperament he was impelled to the adventurous toils of exploration rather than to the duller task of building colonies. The profits of trade had value in his eyes as means to these ends, and settlements were important only as bases of discovery. Two great objects eclipsed all others—to find a route to the Indies, and to bring the heathen tribes into the embraces of the Church; since, when he cared little for their bodies, his solicitude for their souls knew no bounds.

"Christmas-day, 1635, was a dark day in the annals of New France: in a chamber of the fort, breathless and cold, lay the hardy frame, which war, the wilderness and the sea had buffeted so long in vain. After two months and a half of illness, Champlain, at the age of 68, was dead. His last cares were for his colony, and the succour of its suffering families. Jesuits, officers, soldiers, traders, and the few settlers of Quebec, followed his remains to the church, LeJeune pronounced his eulogy, and the feeble community built a tomb to his honor."

A soldier from his youth, in an age of unbounded licence, when the principles of religion and morality were neither fully understood nor faithfully practised, he stood out a bright example of purity and fidelity. An enthusiastic, intrepid, persevering and successful explorer; an undaunted soldier; a pious and sincere, though bigoted, member of the Church of Rome; never thinking of self, but always of his great purpose, he was in everything truthful. "With the life of this faithful soldier." says Parkman, "closes the opening period of New France. He-

roes of another stamp succeed; and it remains hereafter to tell the story of their devotedness, their faults, their follies, and their virtues."

Before closing this part of my subject, I must allude to the interest recently excited, by the alleged discovery of the tomb of Champlain. Should this be an actual discovery, what a lesson does it teach us of the vanity of all human greatness! In the city which he had founded and fostered, the tomb of the great discoverer and propagandist had been so neglected as to be utterly lost sight of, and the place that once knew him knew him no more; and for nearly a century stranger and heretics unwittingly have daily trampled his dust under foot. But dust to dust, and the spirit to God who gave it The earthly tomb has vanished, and its place had been blotted out of the memory of man; but Champlain has erected for himself a monument more imperishable than brass. He has left no heir of his body; but his name will live for ever,, and his fame will spread to the utmost bound of civilization.

COMMENCEMENT OF THE SECOND PERIOD.

Mr. LeMoine, in his very interesting "Maple Leaves," gives an account of the most important effort ever made by the French Crown in connexion withCanada—an effort the results of which are visible at the present day. He points out, among other things, how the names of several of the leading minds of France were associated with the fortunes of the colony, and that among the galaxy of young noblemen, who alone, in the days of privilege, could claim as a right commissions in the French regiments serving in Canada, we will find the historical names of the reign of the great monarch Louis XIV. In 1664 he sent out to Quebec the most brilliant emigration that ever sailed from France: consisting of a Viceroy, a Governor-General, an Intendant, and other necessary officers of the Civil Government; and the Regiment of Carignan, commanded by Col. DeSallières, and officered by sixty or seventy French gentlemen, most of whom were connected

with the noblesse. The strength of the regiment exceeded one thousand; and, in addition, there was a considerable body of artizans and agriculturists, with horses and cattle;—an accession exceeding in numbers all the settlers already in the colony. Many of the officers settled in the colony, and having obtained concessions of lands, became the noblesse or seigneurs of Canada, and were the founders of the best French Canadian families of the present day. "This infusion," says Mr LeMoine, "of superior blood, education and accomplishments, operated beneficially as regards the social and domestic manners of the colonists, previously devoted to the humblest occupations of trade. Liberal tastes were encouraged, and sentiments of honor and generosity pervading the higher ranks, were felt through every class of the inhabitants."

On referring to "Titles and Documents relating to the Seigniorial Tenure," published by order of the House of Assembly in 1852, there will be found one to the Sieur De Chambly, as follows:—

"JEAN TALLON, King's Councillor of State, &c. To all, &c.

"His Majesty having at all times sought with care and the zeal suitable to his just title of the eldest son of the church, the means of making in the most unknown countries, by the propagation of the Faith and the diffusion of the Gospel, the glory of God and the Christian name, first and principal object of the establishment of the French colony in Canada, and accessorily of making known to the parts of the earth remotest from intercourse with civilized men, the greatness of his name and the power of his arms; and having judged that there were no surer means to that effect, than to compose this colony of men fit, by their personal qualities, properly to fill up, to extend by their labour and application to agriculture, and to maintain it by a vigourous defence against the insults and attacks to which it might be hereafter exposed; has sent to this country a number of his faithful subjects, officers of his troops in the regiment of Carignan, and others, most of them, agreeably to the great and pious designs of

his Majesty, being willing to connect themselves with this country by forming therein settlements and seigniories of an extent proportionate to their means; and the Sieur de Chambly, captain in the said regiment, and commander of the troops in Canada, having petitioned us to grant him a portion of land: We, in consideration of the good, useful and praise worthy services which he has rendered to his Majesty in different places, as well in Old as in New France, since he came here by his Majesty's order."

Then follows a grant of the Seigniory of Chambly, to be held agreeably to the Coutume de Paris, "subject to the conditions that he shall continue to keep and cause to be kept house and home on his said Seigniory; and that he shall stipulate in the title deeds which he may give to his tenants, that they shall be held within one year to reside and keep house and home on the lands which he may grant or have granted to them." The grant reserves all oak timber for ship building, and all mines of gold, &c.

This grant is dated at Quebec, 29th October, 1672.

Provision was thus made for the permanent settlement of the country and cultivation of the land; but concessions were also made to the Sieur Denis Riverin and his Company, at Cap Chat and elsewhere, for the establishment of fisheries "for the catching of cod, whales, and other fish," and with the right of hunting and trading with the Indians

But the most important concessions, and what have exercised the most prominent influence on the colony, existing at the present moment in the fullest vigor, were those made to the Jesuits and other religious bodies, male and female, for the propagation of the Faith, and the education of the children of the Indians, and of Frenchmen residing in the colony. These grants were so extensive, and the land was selected with such judgment, that in Quebec and Montreal religious corporations are at this day extremely wealthy, being, in fact, in possession of the best parts of these cities, and owning the most valuable lands in their vicinity.

In 1668 there was great scarcity of women, and several hundreds were in consequence sent from France; on whose arrival it was advertised that a supply had been sent over, and that such as had the means of supporting a wife, should have the first choice. Within a fortnight the whole lot was disposed of.

In 1720-1 Charlevoix says he found about 7,000 inhabitants in Quebec; society agreeable; the military officers and noblesse very poor, but elegant and polished. "Agriculture and commerce were little attended to." Three Rivers contained about 800; and the inhabitants of Montreal did not amount to more than one-half of Quebec.

The polity inaugurated in 1664, was maintained in comparative integrity till the conquest by the British in 1759. Its success, however, was not very marked, for during the progress of a century the population had only increased to 65,000: consisting chiefly of *censitaires* or cultivators—a frugal, industrious and moral race; and seigneurs or noblesse, who, though poor, were very much respected; and a large, equally respected, and at least as powerful, of clergy; also a considerable number of Indians, converted to the Catholic faith. With the conquest closed the *second* period of Canadian history.

COMMENCEMENT OF THIRD PERIOD.

Some time before the conquest, there came to Canada, in command of a French frigate, a cadet of a noble family in Du Pays des Basque, called DeSalaberry. He was of herculean frame, and distinguished for his bravery during all the operations immediately preceding and terminating with the conquest. He had married Mademoiselle Duchesnay de St. Dennis, daughter of the Seignior of Beauport. The issue of this mariage was a son and two daughters. After the conquest he remained in Canada, cheerfully transferring his allegiance to the new sovereign. Indeed, the terms in favor of the French colonists were so liberal, civil and religious liberty was so fully granted and so faithfully observed, that the great body of Canadians

were well content to come under British rule, and in a short time proved themselves loyal and attached subjects.

Of the two daughters of M. DeSalaberry, one married a French gentleman, whom she accompanied to Old France; the other, after the manner of many high-born ladies, dedicated herself to God, by entering the Convent of the General Hospital in this city, where she was long known and revered as Sister St. Catherine.

The son, Louis-Ignace, at the age of seven, witnessed the battle on the heights of Abraham, from the General Hospital; went to France in 1760 to prosecute his education, and returned to Quebec in 1768 to complete it, at the Quebec Seminary. He had inherited a handsome person, tall, and strong as Hercules. His mien was dignified, and he had a most courteous and polished address. He soon became most popular with his fellow-countrymen.

In 1775, during the American war, he joined the British army as a volunteer, and served at the siege of St. Johns, where he was twice seriously wounded. DeGaspé, in his delightful "Memoires," relates that during this siege a shell was thrown into the barrack occupied by DeSalaberry and other officers, all of whom, but he, had time to escape before it exploded. After the explosion, his friends returned, fully expecting to find nothing but a mangled corpse; but, to their great surprise, they found the second Sampson, more fortunate than the first, sustaining on his broad shoulders the whole weight of the edifice! The gouts of blood which he for a long time afterwards occasionally expectorated, testified to the strain his system had undergone. In the following year he served in Captain DeRouville's Company and was wounded by a musket ball in the knee. He continued to serve to the close of the war in 1783; but he had, in February, 1778, married Mademoiselle Catherine DeHertel; and, on the conclusion of the war, he retired to his home, and, subsequently received half-pay as Lieutenant. The issue of his marriage was four sons and three daughters.

While he was living happily in the bosom of his family, at his mansion at Beauport, in 1791, H. R. H. Prince Edward, afterwards Duke of Kent, arrived in Canada, in command of the 60th Regt., and there at once sprung up an intimacy between the Prince and Seignior only terminated by death, and which had a most important influence on the career of the young DeSalaberrys. The Prince became a frequent, almost a constant, visitor at Beauport; he became warmly attached both to M. and Madame DeSalaberry, and took a deep interest in the welfare of their children, which shewed itself in every possible way, and subsequently led to all the four sons seeking a profession in the British army.

In 1794 the Prince was transferred to Halifax, Nova Scotia; and then commenced a correspondance between him and the members of the DeSalaberry family, which was only terminated by his death. I have had the advantage of studying the whole of it, and there remains the impression that a correspondance more creditable to the heads and hearts of the parties could not have taken place. The letters addressed to the elder DeSalaberry are in French—those written to the younger are in English; but one and all, from beginning to end, exhibit, on the part of the Prince, great good sense, but warmed with a heart overflowing with generous, considerate and practical kindness, and endeavouring to anticipate every wish. Neither time, absence, change of place nor fortune, produced change in him, but he remained faithful to the last. It is my intention at a future time, and possibly in another way, to make use of these letters; in the meantime, in the course of this paper, I shall introduce such passages as are best calcuted to elucidate and to interest.

It is anticipating, but I think it better here to introduce one or two anecdotes, as told by DeGaspé:--"Without being rich," says he, "he practised a generous hospitality, and his house was open daily to such as desired to pass an agreeable evening with his amiable family, around the tea-table. He loved, and was beloved, by the young, and was amused and delighted by their society, and encoura-

ged frequent re-unions. He was deeply impressed with religious faith, and the scene was most impressive, when, at the last sound of the bell, the father and mother, and their seven beautiful children, advanced to participate in the communion." It is pleasant, also, to read DeGaspé's account of the manner in which, in his more advanced years, he was received in passing along the streets of Quebec. He was universally saluted as one loved and esteemed; even the children had learned to revere him, and it was remarked that the dignified and venerable Seignior was as marked in returning their salutation as that of the most prominent member of the community.

His feeling of loyalty made it a point of duty to present himself at the levees of the representative of his sovereign. In 1819, when he was far advanced in life, being then in his sixty-seventh year, the Duke of Richmond was appointed Governor-General. Shortly after his arrival, he gave a soiree, at which the ladies were to be presented. DeSalaberry appeared dressed in the full costume of the Court of Louis XVI., taking his proper position before the arrival of the Governor. It thus happened that the guests, as they entered (not having as yet seen the Governor), led away by the richness of his dress, and his imposing person, mistook him for the Governor, and made profound obeisance, which he returned with all the dignity of a prince, and in good faith, not knowing there was any mistake.

In 1796 Lord Dorchester determined to raise a Canadian regiment, and called upon M. Joseph de Longueuil, M. de Salaberry, and M. Dambourges, to aid him. The Baron de Longueuil was Colonel; DeSalaberry, who had shewn great energy and had raised his company in a very short time, was appointed Major, and Dambourges was appointed Captain, of the Grenadier Company. The regiment, "*Les Voluntaires Canadiens,*" was six hundred strong, and had on its colours the device, "Try us." It served, successively, two years in Montreal, two at Sorel, and two at Quebec, when it was disbanded. The biographer of Dambourges asserts that it was frequently short of pay and supplies, and that Colonel Longueuil actually

sustained it, for a very considerable time, out of his own revenue, and writes indignantly that, notwithstanding the sacrifices made by both officers and men, the Duke of Portland had forwarded a despatch, in 1801, to Governor Sir R. N. Milnes, containing this unjust expression: "But before I proceed further, I cannot help expressing to you my surprise that the establishment of the Canadian Battalion in Lower Canada, the principal object of which was to draw the Canadian gentlemen from their indolent and inactive habits and attach them to the King's service, should have met with no greater success."

M. L. DeSalaberry was twice elected to the Provincial Parliament, and was subsequently called to the Legislative Council. He was President of the great Committee of Quebec, and was chosen to carry the address, signed by 70,000, against the Union of the Provinces. Under the administration of Sir James Craig, he would not consent to stand a policy in support of that measure; and when threatened by him with deprivation of office, replied, "You may take from me the bread of my family, but shall never deprive me of honor!"

On the eve of the war of 1812, DeSalaberry and General DeRottenburg, by desire, wrote a joint memorial to Sir Geo. Prevost, pointing out the necessity of employing the Canadians in defence of the country; and it was that confidential communication, so favorable to the character of the Canadians, which determined Sir George to throw himself into their arms. He was subsequently named Commandant of the 1st Battalion Incorporated Militia. He enjoyed the full confidence of the men, who followed him to L'Acadie with enthusiasm; but being struck with paralysis in the right leg, he was compelled to resign the command. He lived to mourn the loss of his three younger, and to witness the triumph of his eldest son in the service of their country, having survived till 1828.

His four sons, Charles, Maurice, Louis and Edward, through the influence of the Duke of Kent, obtained commissions in the British army. Maurice and Louis, after

a brief but honorable career, died on active service in India; while Edward, the youngest, the godson of the Duke of Kent, fell, at the head of the forlorn hope of his company, at the storming of Badajos. I shall incidentally, before the close of this paper, have occasion to advert to these again; but I will now leave them, and direct your attention to their elder and more distinguished brother, Charles Michel, the "Hero of Chateauguay." Under the auspices of the Duke of Kent, he entered the army some time in 1794, having received a commission in the Duke's own regiment, now known as the 60th Rifles; his first services were in the West Indies, where he served eleven years. He was present, under General Prescott, at the Siege of Fort Matilda, and though scarcely sixteen years of age, the General selected him, with his Grenadiers, to cover the evacuation, which he did so as to meet the marked approbation of his chief. In command of the same company of Grenadiers, he served during the Dominica campaign in 1795.

It was during his services in the West Indies, while he was stationed at Jamaica, that there occurred what may be called, not the great error, but the great misfortune, of his life. The story has been well told by DeGaspé:—"The officers of the 60th Regiment, of which Charles-Michel DeSalaberry was lieutenant, were of different nationalities, English, Prussians, Swiss, Hanoverians, and two French Canadians, Lieutenants DeSalaberry and DesRivières. It was difficult to preserve harmony among them—the Germans especially being passionate, quarrelsome, and duellists. One morning, DeSalaberry was sitting at breakfast with some of his brother officers, when one of the Germans entered, and looking at him with an insulting air, said, "I have just come from sending a French Canadian to the other world!" meaning that he had just killed Des Rivières in a duel. DeSalaberry sprang like a tiger from his seat; but instantly calming himself, said, "We will finish breakfast, and then you shall have the pleasure of finishing another French Canadian." They fought, as was then the custom, with swords; both were noted for their great skill, and the contest was long and obstinate.

De Salaberry was very young; his antagonist more aged, and a rough bully. The young Canadian received a wound on his forehead, which time never effaced, and as it bled freely and interfered with his sight, friends attempted to stop the conflict; but he would not consent, but binding his handkerchief round his head, recommenced the fight with greater fury. At length his adversary fell mortally wounded."

How thankful ought we to be that, in our day, this barbarous practice of duelling has been discountenanced. We may not blame DeSalaberry: viewed in the light of the moral code, and the code of honor, of the time, he was in the eyes of the world, not only justified, but worthy of all commendation; for he acted under a just indignation and the generous impulse of youth; the provocation was great, and the punishment not more than adequate. We have said that this was the great misfortune of his life, and we have reason to know that he felt it so himself. Like all brave men, he never talked of his own achievements; but many years after this event, when he was happily married, and a father, his son, who had heard of his exploits, said, "Father, you were in a great many battles; were you ever wounded?" "No, my boy!" was the answer. "What, then," was the rejoinder, "is that mark on your forehead?" The father staggered as if had been shot, and getting up left the room, followed by his wife, who, on her return, explained to her son, requesting him never again to revert to the subject, as any allusion to it always gave his father great pain.

I have had before me numerous letters, written in French, by the Prince Edward, while he was in command at Halifax, to the elder DeSalaberry; they all express the deepest concern for the welfare of his family, and describe plans for their advancement. Time will not permit me to read them; but I shall give a short extract from one, dated "Kensington Palace," 9th April, 1799, immediately after his arrival in England. Having described the unpleasant passage encountered from Halifax, he says:—"On my return, I was received in the most flattering manner by

their Majesties, and all my family. My establishment has passed both houses of Parliament and has received the Royal assent, and I have reason to know that, in a few days, I shall be created Duke of Kent. It is his Majesty's pleasure that I shall remain for the present on service in England, my head-quarters being at the centre of Hampshire, and I am to command the troops which are in camp for the defence of Portsmouth and the Isle of Wight."

It may be remarked here, that the Prince had served with distinction during the campaigns in the West Indies, having, at the capture of Guadaloupe, in 1794, led the first division in such a way "as to do the officer who commanded, and every officer and soldier under him, more honor than words can convey." Both houses of the Imperial Parliament passed him a vote of thanks "for his gallant conduct and meritorious services." Yet, though he was now 27 years of age, having been born 2nd November, 1767, and though the Duke of York had obtained his settlement at the age of 21, and the Duke of Clarence at 24, we find that the King suffered him to remain unprovided for, and in known pecuniary difficulty, till his 32nd year; and then, with marked partiality, caused at the same time an allowance to be voted to his younger brother, the Duke of Cumberland. Parliament granted him £12,000 a-year, but, strange to say, no "pecuniary assistance" to aid him in setting up an establishment, as had been the case with the Duke of Clarence. He subsequently pressed his claims on the King and Ministry, and though pledges were given, they were never fulfilled. Why? it may be asked. The only apparent answer is—his political tendencies were liberal; an offence which, in the eyes of George the Third, and his Ministry, would excuse any act of injustice. The Prince had an impression of his own, which he has recorded in a letter, in which he alludes to his carrer in the West Indies, "The wish entertained about me, in certain quarters, when serving there, was, *that I might fall!*"

However, at the time he wrote the letter quoted, and one on the 10th June, 1799, he appeared satisfied with his

prospects. In the last letter, he says, "The reception I received on my arrival here proves the advantageous opinion which the King entertains of me. He has advanced me to the grade of General, and honored me with the post of Commander-in-Chief in British North America; and I have now to inform you that I will set out for my command in three weeks." He adds,"On account of the conflict between General Prescott and his Council, his Majesty has resolved to recall him, and appoint me his successor in his military function." He came out in the month of July; but his health gave way, and he was obliged to return to England in the autumn.

In further illustration of the undeviating interest taken by the Duke in the career of his protegés, I shall give a few more extracts from his letters:—

"Kensington Palace, 5th Feb., 1807.

"Dear DeSalaberry,—I have great pleasure in informing you that your brother Edward passed his examination at Marlow, in my presence, with credit to himself, on Tuesday, and that I left him there in charge of a very worthy man, Captain McDermott, who has promised me that he would take the same care of him as if he were his own son; so that you may write your good father and your excellent mother, that all the roughest of his labour is over, and that I trust there is now none but the most pleasant prospect before us."

On the 18th April, 1807, Maurice and Louis sailed for India, attached to the 2nd Battalion of the Royals, and on the 21st the Duke wrote announcing their departure; and the letter countains the following extract:—"As yet I do not know who will go to command the forces in Canada; but whenever I find it is decided, I will strive to get you nominated to their staff, knowing what a gratification it must be to your parents to have one of their sons so near them. But even if that should fail, I will be on the watch to avail myself of anything else that may offer for your advantage, of which, rest assured, I never will be unmindful."

Extract from a letter, 3rd August, 1807:—

"I had the pleasure of conducting your brother Edward to Great Marlow, on Saturday last, after having spent a month at Castle-hill Lodge; and I have infinite gratification in assuring you that his conduct has been so much everything that I could wish, during the whole time, that it quite went against me to part with him; and I am sure his godmother "était au moins de moitié" in the same sentiments. Madame de St. Laurent, who knows that I am writing to you, bids me assure you of her kind remembrance, and thanks you for your recollection of her; and, as for myself, you must be sensible, I am ever, with the most friendly regard.

"Dear DeSalaberry,

"EDWARD."

In 1808 Charles-Michel, being then Brigade-Major, and stationed at Ashford, in Kent, obtained leave to visit a relative in Ireland; and it was thus his fate to fall a victim to that passion which so often turns the "young and tender wit to folly." Yet what could be more natural: the young officer was handsome and accomplished, and the lady, young, beautiful and gentle; and in every respect but fortune they were suited for each other. They loved, and wished to marry; but, before taking so grave a step, DeSalaberry thought it his duty to consult his patron and guardian. I have not seen his letter; but I subjoin the Duke's reply, which DeSalaberry has left thus endorsed: "Advice to me on the subject of marrying—paying me a very handsome compliment as a soldier." This composition is a "chef d'œuvre.

"Kensington Palace, 1st Nov., 1808.

"My Dear DeSalaberry,—Having now replied to every point contained in your letter to me, I have to advert to that you have written to Madame De St. Laurent, under date of the 30th ultimo, which she communicated to me immediately on the receipt of it last night, and will endeavour to give you my sentiments on its contents with all that candour which my friendship for your excellent parents, as well as yourself, of so many years' standing, gives you every right to expect from me.

"From the long experience I have now had of the service of the regiments of the line, I am satisfied that no situation is so *unenviable* as that of a married officer, even when he possesses an independent fortune to enable him to support his wife and family in the style in which a gentleman (such as the profession should make every one who holds the King's commission) not only would wish, but ought to do. Of course, therefore, when the married officer has not the aid of private fortune to add to the small pittance which the regimental pay affords him, in these dear times, his situation must be deplorable, being obliged either to see his wife and family want those comforts, without which their life must be a burden to them, or to run in debt to procure them. You, my dear DeSalaberry, at this moment, possess about twenty shillings a-day pay, exclusive of those allowances which are not more than adequate to furnish and support your equipage as a staff officer. But the moment you get promotion, which naturally must be your first object, you will be reduced to fifteen shillings; for you cannot expect that, with my interest only to support you (which literally at this time is worse than none), you will be appointed to any situation on the staff, while every advancement must make you vacate the Brigade-majorship you now hold;—that being the case, I leave it to your own good sense to judge whether, upon *that* small stipend, it would either be right or honorable to table away a young woman, for whom you have a regard, from those comforts she has been used to at home, to share the wretched accommodation of, at most, two barrack-rooms, if you are so situated as to be enabled to have her with you; or, if the imperious call of duty separates you, to vegetate in some obscure lodging, on the few shillings which, I contend, you can ill spare from your scanty pay. Were I to write volumes, I could not express my sentiments more fully than I have done in the three foregoing pages: from which you will easily see that the sum of my opinion is, you *ought not* and *cannot* think of marrying your cousin; indeed, I would go further, and say, you ought to shun the very thought of matrimony,

situated as you are; but if, under *any* circumstances, it can be right for you to think of it, it would be if chance threw in your way a woman of respectable character, who is enabled to give you, the day you marry her, that independence which there is little prospect of your being ever able to give her. After saying this, let me advise you, *de prendre sur vous*, to be explicit without loss of time, for honor, good sense, and every consideration, require it; and believe me, when you have done this, you will, to the last hour of your existence, feel grateful to me for having given you this counsel; for to be a good soldier (for which highly honorable qualification no man possesses more the requisite than yourself), it is absolutely necessary for a man to be independent, and with a wife and the prospect of a family, it is impossible for you to be so.

"As you cannot doubt my friendship, I am sure you will ascribe every word I have said to the only motive that could guide me—*that* of your welfare and future prospects. I shall not therefore attempt to apologize for the freedom with which I have spoken, but conclude here by assuring you of the warm sentiments of regard with which I ever am,

"Dear DeSalaberry, yours faithfully,

"EDWARD.

"P.S.—Madame De St.Laurent desires me to say, that I will return you your letters to your friend,Captain Levery, being convinced that you will now see the necessity of writing one of another complexion; in doing which you have my full sanction to say that you have consulted me, and to communicate the advice I have felt it my duty to give you."

In 1809 DeSalaberry accompanied his regiment on the unfortunate Walcheren expedition; and, on the 19th July, the Duke wrote him as under:—"I shall rely on your promise to write by every opportunity that offers, and that you will desire Captain Smith, who is with Brigadier General Brown, to do the same, as it is always interesting to receive accounts from two different hands, of events of the nature of those you are likely to encounter." "Madame De St. Laurent and I most cordially unite in every wish for your success, honor, and advancement."

From all the Duke's letters, it is evident, he anticipated nothing but disappointment from the blundering and incapacity which pervaded the management of the expedition. I shall give one or two further extracts. Under date 18th September, 1809, he writes;—"But,—exclusive of certain apprehensions which I was led to entertain (from reports which were in circulation here, of a degree of jealousy existing at your head-quarters, in regard to those officers who corresponded with me), and which made me feel backward in writing to you, for fear of its doing you disservice there,—I cannot help expressing my regret at the misapplication of the noble army that has been so uselessly employed upon a service the result of which, so far from being commensurate with the extent of the means employed upon it, could hardly be justified, even if two-thirds less force had done so little."

On the 25th September, he wrote:—"It would really seem as if those *fellows* (for I have no patience to call them anything else) were paid by the enemy to do everything against our troops, instead of being supported at a heavy expense by our own Government, to provide for their wants." "Madame De St. Laurent desires me to say how sincerely she unites with me in every wish for your welfare and happiness; and that I should inform you, for the honor of Maurice and Chevalier (Lewis), that we heard yesterday, by a letter from Mr. Hale, that these two brothers of yours had transmitted to your excellent father one hundred guineas, the result of their little savings since they had embarked for India. Such traits, she observes, ought to be engraved in indelible characters, and *so they will be in our hearts.*"

On the 10th November following, he wrote:—"There are very unpleasant rumours about a mutiny in the garrison of Flushing, among our troops, in consequence of two or three severe, though, I have no doubt, very proper examples having been made of some soldiers who were caught plundering and marauding. God grant it may not be true, and, above all, that my regiment is not among the faulty. Perhaps to-morrow you will be able to tell me

something further about it." And:—"All now to be hoped is, either that such a change will take place in administration as will lead to the immediate adoption of the only feasible plan which in our present situation can be thought of—*that* of evacuating Walcheren, after razing or blowing up all its defences; or, that the existing Ministry will have the candour to avow the egregious error they have committed, and take that step without which we have nothing to look forward to, but the annihilation of those unfortunate corps, who are destined to encounter the pestilential sickness of that aguish climate." And:—"Nothing can be more distressing than the details you give me of the extent of the sickness, or be more bitter than the reflection, that so many poor fellows should have been so wantonly sacrificed. In the number of those who have fallen, there is none I more sincerely regret than my old, worthy friend, Major Hill, who was one of the few standards of the old stock, of which now, alas! there are but few remaining; I feel, too, much for his poor wife, whose situation, I apprehend, will be rendered most lamentable by his loss. What a scandalous shame it is, that when your commissariat had the power in their hands, as you tell me they had, of procuring you an abundant supply of fresh provisions, they should have neglected that most important point, and that, through that neglect on their part, you should now be reduced to the sad alternative, in the midst of all your sickness, of being fed six days in the week on salt provisions."

Captain De Salaberry, who had landed at the head of the Light Brigade, as aide-de-camp to General DeRottenburg, served during the whole campaign, being at the advanced posts before Flushing during the whole of the siege. After the evacuation he was transferred to Canada, and placed on the staff of General De Rottenburg. It was while he was on duty at Quebec, he received the following letter, which I must give in extenso:—

"Kensington Palace, Aug. 6, 1810.

"Dear DeSalaberry,--It was my intention on the receipt of the annexed truly afflicting letter from your brother

Lewis, which reached me on the 9th ultimo, to have transmitted it to you, that you might be apprised of the melancholy event of which it contains the relation, and to have commissioned you to break it to your good parents and your sisters; but being unfortunately obliged, as no official report had reached the Horse Guards of your poor brother Maurice's demise, to transmit Lewis' letter to Lieutenant-Colonel Torrens, it was, through some oversight in the Military Secretary's Office, not returned to me until yesterday; so that it was out of my power to send it to you sooner. Fortunately, the departure of your friend, Dr. Keith's *protégé*, Mr. Morris, for Quebec (for whom I have obtained an Ensigncy in the 49th Infantry), affords me an opportunity of sending it, and I hope and trust it will arrive in time to prevent the account of the sad catastrophe from reaching your parents before this comes to hand, and enable you to prepare them for it.

"To you, who know how attached I am to your whole family, and how particularly partial I ever have been to poor Maurice, I need not attempt to express all I feel upon this distressing loss; but I shall depend upon you to say everything for me that is most consoling to both your parents, and your sisters, upon communicating the circumstance to them, and to assure them that were he my own brother, I could not lament his loss more sincerely than I do. I fear that it will be a very severe blow, particularly to your mother. However, she is a thoroughly religious woman, and I trust she will in time overcome it, though, I am well aware, it will be a sad task.

"No change has taken place in my situation since you left this, except a severe and most inopportune blow to my finances, which the failure of my bankers, Messrs. Devaynes & Co., has just given them—not from any actual loss, perhaps, which I have eventually to apprehend, but as leading to an unavoidable and immediaate deprivation of some of those comforts which we have hitherto always been used to; however, I have been accustomed to disappointment, and I hope I know how to meet this fresh and

unforeseen one as I ought. Could I get out to Gibraltar, all would soon be right again, but I do not apprehend that so much good fortune is in store for me.

"Remember me to Col. Hale most particularly, and tell him that the first leisure hour I have, I will answer his letters up to the 11th of April (the last of them), which reached me on the 24th June, I shall devote to him.

"I had nearly forgotten observing to you, that now Baron De Rottenburg has attained the rank of Major-General, it will be in his power, without putting himself under an obligation to any one, to retain you with him as his aide-de-camp, which, I have no doubt, he will himself do, on being apprised of it.

"I remain ever, with the most friendly regard,

"Faithfully yours, dear DeSalaberry,

"EDWARD."

This letter requires no comment.

Some time before the declaration of war by the Americans Sir George Prevost urgently solicited DeSalaberry to raise the "Canadian Voltigeurs." The rapid levy; the equally rapid formation of this corps; their constant success against the enemy: the good example which they always set to the other young corps and the militia in general—bespeak alike their value and the service rendered in raising them.

On the advance of General Dearborn, with 10,000 men, to Odelltown, in November, 1812, Sir George Prevost sent him, with 400 men and some Indians, to dispute his entrance into L'Acadie. In this he completely succeeded, for the American general, after fruitless attempts to force him, decamped on the 23rd. November. For this service he received thanks in the following General Order, which I copy in full, to shew that at this time there was a disposition to do justice:—

"Adjutant General's Office,

"Head-quarters, La Prairie, 27th Nov., 1812.

"G. O.—His Excellency the Commander of the Forces takes this opportunity of expressing to Lieutenant-Colonel DeSalaberry, his entire approbation of his conduct in the management of the advance, as well as the high sense

he entertains of the alacrity with which the corps of the Voltigeurs, Voyageurs, the Battalion of embodied Militia, Captain Platt's troop of light Cavalry, and the Montreal Militia, repaired to their different posts to repel the threatened invasion, and which, had it taken place, his Excellency feels confident, from the tried valour and discipline of his Majesty's regular forces, and from *the enthusiastic loyalty and courage of all classes of his Majesty's Canadian subjects,* would have terminated in the defeat and disgrace of the enemy. The extraordinary exertions which have been made on this occasion, and which thus calls forth his Excellency's notice and commendation, cannot fail from producing the most happy consequences to the future tranquillity and prosperity of the country. The General Orders of this day, and the 27th current, are to be entered into the General Orderly Books, and read at the head of every corps on parade.

(Signed,) "EDWARD BAYNES,

"Adj.-General, N. A."

In 1812 he married his cousin, Demoiselle Marianne Hertel de Rouville, a descendant of that Sieur de Rouville to whom was first granted the Seigniory of Chambly. I have given a letter of the Duke's on a former intended marriage:—

(Copy.) "Kensington Palace, 8th August, 1813.

"Dear DeSalaberry,—I have now before me your four letters of the 4th and 18th October last year, and of the 2nd of June of the present one, the former of which I received on the 28th November, and the last on the 7th instant. The first of these letters being written in all the bitterness of your anguish upon receiving that large packet of mine which contained the melancholy details of the loss of *all* your poor brothers, I shall only observe on it, that if I have so long delayed in acknowledging it, it has arisen from an unwillingness on my part to rip up those sores, which, I am aware, for a length of time can be but slightly cicatrised; and now that I resume my pen, I do it

with some degree of pleasure, perceiving that your last letter is written in so much better spirits, although it gives but a melancholy account of your good and valuable parents.

"Madame De St.Laurent and myself, who were delighted to hear, in the first place, of the very judicious marriage you have made, have also been highly gratified in learning that she has given you a son, and not a little pleased with the compliment you have paid her by naming him after her. You will therefore judge how cordially we both unite in the fervent prayer, that the name may prove more fortunate to him than it was to your poor brother Edward.

"The accounts which you sent me of your Battalion of Voltigeurs, and the progress you make in bringing them forward in a state of discipline, prepared me for the very handsome but well-deserved compliment paid you, at a subsequent period, by the Commander of the Forces, as well as to them. It was therefore a matter of real satisfaction to me to be able to succeed in getting you the permanent rank of Lieutenant-Colonel, which, I may in truth say, you *so hardly earnt;* but I hope now all painful recollections will be done away with, and that you will continue to serve with alacrity, so long as the war lasts—looking forward to retire with honor, credit, and some advantage, at a peace; unless we can succeed in securing you, at *that* time, one of the principal staff situations in Canada. At the same time that I say this, if you could previously exchange into a permanent corps, you should not lose sight of it, as thereby establishing your right to sell out.

"To revert for a moment to the melancholy event of poor Edward's death, I most fully subscribe to the propriety of your having kept back my letter announcing it to your poor father, which, of course, will now remain in your hands, to be made use of, or not, in course of time, as circumstances may require. I grieve much to find that your father's debilitated state should have rendered his resignation of the command of his Regiment of embodied

Militia unavoidable, as I fear that circumstances must necessarily have circumscribed his comforts. You have not mentioned, in your last letter, your good mother; I fear, therefore, you had nothing comfortable to say of her. Pray do not fail, in your next, to name her, as well as all yourselves; for Madame De St. Laurent and myself still preserve the same lively interest in their welfare, and desire to know everything about them. When I contrast the present melancholy scene of Beauport, with the recollection of what we formerly remember it, I own it depresses my spirits much, and therefore I am always ready to make every allowance for your feelings on that head.

"Should the war continue much longer, and you once attain the rank of Colonel, I trust you would obtain the clothing of your corps into your own hands; and in that case I hope you will remember Carder for your clothier, and Mr. Kirland for your agent.

"I shall long to hear from you some account of my 1st Battalion, in case you should at any time come across them; for after being separated as they were, for above eleven years, in the West Indies, I am fearful their appearance and discipline cannot be much to their credit.

"In general, all you tell me of the appearance of things in your vicinity, as to the present campaign, is extremely cheering, and I look forward with some degree of confidence to a succession of comfortable accounts from Canada during the remainder of the season. I have been doing all I can here to impress the necessity of doubling your number of seamen on the lakes, and sending you out a couple of thousand Highlanders yet this season; but I am not able to say whether my counsel will be attended to or not.

"I have recently met myself with an awkward accident, from my horse falling with me, as I was trotting briskly down the hill between the gates of Castle-hill and the bottom of Mr. Meuxe's grounds. Though it happened as far back as the 2nd of last month, I have not yet been able to leave my own premises—the cuts and bruises, though not

dangerous, having been very severe. I have, however, been able to keep off fever through care and abstinence, and I hope by the time this month is up to feel nothing of the effects of it.

"It now only remains for me to convey to your wife Madame De St. Laurent's kindest thanks for her obliging message, to assure you of our united best wishes for your health, wealth and happiness, and to subscribe, myself, with the most friendly regard,

"Dear DeSalaberry,

"Yours faithfully,

"EDWARD.

"P.S.—The enclosed letter was left with Beck some time since for you, and he requested me to enclose it.

"Lieut.-Col. DeSalaberry."

It must have been observed, that while the Duke never lost sight of an opportunity of advancing the interest of his friend and *protégé*, he always made it a point to recommend that he should place himself in the post of honor and danger; and there DeSalaberry was always to be found. We accordingly find that, before the receipt of this letter, he had—obeying the imperious call of duty--left his young wife and first-born son and child, and placed himself at the head of his Voltigeurs.

In 1813, General Hampton having contemplated an attack on Montreal with 7,000 men, DeSalaberry was again sent to dispute his entrance into L'Acadie, which he successfully did; for the enemy, after several skirmishes, did not care to risk a general engagement in the woods, but decamped to "Four Corners." DeSalaberry, having positively ascertained his intention, took upon himself, without orders, to countermarch with his regiment; and, on the 1st October, with 50 Voltigeurs and 150 Indians, surprised him in his camp, and, after a very warm action, succeeded in putting him into confusion and making a reconnoissance. Dearborn and Wilkinson having been foiled, and the Americans having been defeated at Chrysler's farm, there remained only General Hampton to con-

tend with. In advancing to meet him, DeSalaberry, who had made himself acquainted with the country some weeks before, felled trees, and completely obstructed the road from Odelltown to L'Acadie, along which he had proposed to advance. Hampton made an attempt to form a junction with his Commander-in-Chief, by the route leading to Chateauguay, believing the route to be open; but DeSalaberry had been sagacious enough to know that this was the road he would probably take, completely obstructed the route, and had with great judgment thrown up field works at every strategic point. DeSalaberry then shifted his position and ascended the left bank of the Chateauguay river, to reach the other extremity of a wood, where he knew there was an excellent position in a deep swamp, permeated by rivulets. On four of these he established successive lines of defence, the last, about half a mile in the rear, commanding a ford on the right shore. Breastworks, extending into the wood, were thrown up on the lines in order to protect his right. The whole of the day was occupied in making these arrangements, and thirty men of the division of Beauharnois were sent to the front for the purpose of destroying the bridges, and still further obstructing the roads to the extent of a mile in advance of the first line. Major-General DeWatteville visited and entirely approved of the works. Sir George Prevost, with his force, was thirty miles in the rear. On the 25th October, General Hampton, with his whole army, consisting of seven thousand infantry, four hundred horse, and twelve pieces of artilery, advanced to the Canadian encampment, in which was DeSalaberry with *three hundred men*—Voltigeurs, Fencibles and Indians. Hampton, during the night, despatched Col. Purdy, with some troops, to take possession of the ford; but he lost his way. The next day (the 26th) Hampton, with three thousand five hundred men, made an advance towards the abattis, and placed Purdy at the head of one thousand five hundred more, leaving the rest in reserve. DeSalaberry, being fully prepared, advanced towards the first line of defence, leaving Lieutenant-Colonel McDonnell in charge of the second. Firing commenced effectively on the part of the

Canadians, but ill-directed by the Americans. Purdy again attempted the ford; but, on arriving, found he had been anticipated by DeSalaberry, who threw him into disorder and repulsed him. Hampton, finding himself outgeneraled and foiled on all hands, ordered a retreat, which was not effected without considerable loss. DeSalaberry slept on the field of battle, and in the morning, at sunrise, was joined by his brother-in-law, Captain DeRouville, with his company of Voltigeurs, the Watteville Grenadiers, and a few Indians. DeSalaberry sent out Captain DuCharn, with one hundred and fifty warriors to reconnoitre, when they discovered that the Americans had abandoned their camp and retreated to Plattsburg. Wilkinson, who was at Cornwall, hearing of Hampton's defeat, retired to Salmon river, where he fortified himself.

The victory at Chateauguay prevented the junction of Hamilton and Wilkinson, arrested the invasion, saved Montreal, and enabled the British commanders in Upper Canada to resume offensive operations.

I cannot refrain from giving here a translation of a letter written by Col. DeSalaberry to his young wife, from the field of battle. It is dated Wednesday—the day after the battle—and is addressed to his father-in-law, Col. DeRouville, with an indorsement as follows:—"Recommended to the care of Major Burke, with the hope that he will forward it with as little delay as possible.—

C. M. DeSalaberry."

"My dear Maryanne,—I have to inform you that yesterday, with about 250 men, I had the honor to defeat the American army, more than 6,000 strong. I had more troops, but they were placed in position in rear. The enemy made repeated attacks on our abattis, and, after a contest of four hours, he was compelled to retire to the river at the ford, four miles from the field of battle. We have pushed our piquets in advance. This is the most extraordinary thing which has been performed since the declaration of war by the Americans.

"The Governor said to me (he arrived after the action),

'The action which you have performed does you and your countrymen great honor, the whole of you being Canadians.' I hope he will be satisfied, though he appeared cold.

"I cannot take more than to say how much I love, or rather how I adore, you and your dear little one. Embrace him for me, and a thousand kisses for yourself.

"Ever yours,

C. M. DeSalaberry."

"We have lost six killed and sixteen or eighteen wounded —four Voltigeurs. The enemy has lost, in killed, wounded and prisoners, more than one hundred. Rouville is well, but did not arrive till after action. A thousand regards to papa and mamma."

Messrs. Morgan and LeMoine have both given accounts of the battle; and Mr. LeMoine gives extracts from the Montreal *Gazette* of 3rd November, 1813, from an account furnished by an eye-witness and participator, the late Chief-Justice O'Sullivan, who was DeSalaberry's adjutant:—"It is highly gratifying," says O'Sullivan, "that the three hundred men engaged, together with their brave commander, were all Canadians, with the exception of the gallant Capt. Ferguson, three of his company, and three officers belonging to other corps. Let this be told whenever mention is made of the battle of Chateauguay, and prejudice must hide its head, and the murmurs of malevolence be hushed in confusion."

The Hon. Juchereau Duchesnay, whose father and uncle were present at the battle, writing of DeSalaberry, says: —"It is difficult which to admire the more—his personal courage as an individual; or his skill and talents as a commander. We find him, long before the battle, displaying the greatest judgment in the choice of his position, and strengthening it, when chosen, with every means within the reach of his ingenuity. We see him, in the heat of action, embracing every object with a comprehensive view, defending every point, and providing for every contingency."

But the most gratifying testimony is that furnished by the Duke of Kent, in the following letter:—

"Kensington Palace, 25th March, 1814.

"My dear DeSalaberry,—It was on the 22nd December that I received your letter of 28th October; and a few days afterwards, the details of your brilliant repulse of the enemy, through your worthy father, and your brother-in-law, Duchesnay.

"As in the inclosed letter for your father, which I send under flying seal in order to enable you to withdraw the postscript, or not, as you may see fit, you will see my sentiments on that business, it will be unnecessary for me to say more in this, than that I appreciate as highly your distinguished conduct on the memorable occasion in question, as if it had been noticed by those whose duty it was to notice it in a manner commensurate to your merits. It is easy to form an opinion why more ample justice was not done you; but upon this head it may perhaps be more prudent to be silent—more especially as you may take my word for it, that there is but one opinion as to the credit which you have done yourself, and the remuneration which you are entitled to.

"It is a great satisfaction to me to find that the Canadian Militia, both embodied and sedentary, have behaved so well; and when it is considered how insufficient the Militia laws are to the proper government of the men upon military principles, I think your merit in having brought your Voltigeurs to the state of perfection which, I understand, they have attained, is beyond all praise.

"With respect to yourself, I will tell you candidly my wish is, when a proper opportunity offers, to get you promoted to the rank of Colonel, by being nominated an honorary A.D.C. to the Prince Regent; and then, some day or other, appointed Colonel-Proprietaire of the Canadian regiment—which will then thrive under you, and enable you to remain in your own country, with benefit to that and honor to yourself. So do not think of quitting the army upon any consideration, while there is not a chance of your being removed from the defence of your *Dieux Penates*. As to your worthy father, the granting him his full pay for life, upon retirement, was but an act of jus-

tice; and the withdrawing of that grant afterwards, most unjustifiable, and I do not wonder it should have hurt you; but times may alter.

"Repeating, as I conclude, the sentiments of friendship and esteem, with which I ever am, my dear DeSalaberry,

"Yours faithfully,

(Signed,) "EDWARD."

This was the sensible and suitable way in which H. R. H. proposed to reward the great service of DeSalaberry. Let us see what was actually done. Great Britain commemorated the victory, by causing a medal to be struck; the Voltigeurs were presented with colors; and DeSalaberry, besides the gold medal, had the Order of the Bath conferred upon him--transmitted, with an autograph letter, from the Prince Regent. The two houses of Provincial Legislature passed a vote of thanks to him; and his father's pension, which had been "most unjustifiably withheld," was restored. This was all; and we must admit a most inadequate recompense it was.

Col. DeSalaberry was selected by Sir George Prevost to take a share in an expedition against the enemy at Salmon River. In addition to his own Regiment, four companies of the 49th Regiment marched with him to Coteau du Lac; but the expedition was given up.

In April, 1814, he was sent into L'Acadie, with 1,800 men, to attack General Wilkinson; but that General had retreated from Odelltown, before he could cross the inundated roads, In July, 1814, he was again sent to Odelltown, with 2,200 men and some artillery, the greater part regulars, to make head against the American General, Izard, who was intrenched at Champlain and menaced L'Acadie with 6,000 men. Soon after this, the British troops arrived from France; peace was concluded, the Voltigeurs were reduced, and DeSalaberry, being reduced to half-pay, retired to his home at Chambly. In 1818 he was called to the Legislative Council—his father being still a member; and in this position he remained till death. The elder died in 1828.

In explanation of the allusions made in the notice of O'Sullivan, and the letter of the Duke of Kent, I may say that they arose from an attempt made, in certain quarters, to deprive DeSalaberry of his just fame. In order to place this matter in its true light, I have placed in the Appendix documents which speak for themselves, and cannot be gainsaid.

DEATH OF THE HERO OF CHATEAUGUAY.

Colonel Charles-Michel DeSalaberry, like his father, was always fond of the society of the young. In 1829 he was spending the evening at the house of the Hon. Mr. Hatt, at Chambly, when a young lady, to whom he was much attached, prevailed upon him to dance a reel with her: he danced so spiritedly and long, that his eldest son, who was present, glided in before his partner and assumed his place. On ceasing to dance he withdrew to an adjoining room, and throwing himself on a couch, said to a young medical friend, who chanced to be there, "I feel very unwell!" and almost immediately became speechless, but retained his other faculties. He was bled, and on the following day Dr. R. Neilson arrived from Montreal, when he was again bled; but human skill was in vain.

> "At length no more his deafened ear the minstrels' melody can hear,
> His face grows sharp; his hands are clenched, set are his teeth; his fading eye
> Is sternly fixed on vacancy."

The strong man, "in manhood's glory," expired at the early age of 51. Madame DeSalaberry survived many years, and his children are still with us—Lieut.-Col DeSalaberry, D.A.G., being the representative of the family.

Some men are born great, some achieve greatness, and some have greatness thrust upon thm. If the hero of our story was not born great in a world-wide sense, he had the fortune to be born of one of the oldest and most distinguished French Canadian families, so that it may be said fortune smiled on his birth. Greatness was not thrust

upon him; but here again fortune was propitious and afforded opportunities of advancement possessed by few. That he achieved greatness few will be disposed to deny;—the warmhearted, generous, chivalrous friend; the loyal subject; the brave, the prudent, and the skillful soldier; the Canadian Leonidas; the victor at Chateauguay; the saviour of Canada—will never pass from the admiration and affection of his own countrymen, and his name will flourish in immortal youth wherever the tale of his great exploit at Chateauguay shall be told. May our country never want subjects as loyal and brave as DeSalaberry; and may she learn how better to reward them!

I cannot close this paper without making one more allusion to the Prince who occupied so prominent a part in it. His letters to the DeSalaberrys, extending over a period of more than twenty years (some of them sixteen pages in length), give us a true index of his character, and exhibit him as a warm-hearted, considerate, and discreet friend—above all, truthful and faithful: indeed, if it could with propriety be said of mortal man, that he was "without variableness or shadow of turning," it might in all truth be said of him, who, being a King's son, was further nature's *nobleman*. Had he lived, there can be little doubt Canada would have felt the benefit of his wise and liberal counsels; and that justice would have been done to DeSalaberry which, I regret to say, has not been rendered to himself or family.

The Duke married, on 29th May, 1818, the sister of the late King of the Belgians, the widow of the Prince of Leinengen; and, on 24th May, there was born to him at Kensington Palace, a little daughter, now our most gracious Sovereign Queen Victoria. On the 29th December, 1819, he wrote from Walbrook Cottage, to a friend:—"My little girl thrives under the influence of a Devonshire climate, and is, I am delighted to say, strong and healthy—*too healthy*, I fear, in the opinion of some members of my family, by whom she is regarded as an intruder; how largely she contributes to my happiness at this moment, it is

needless for me to say to *you*, who are in such full possession of my feelings on the subject."

This was one of his last letters, as he died, after a few days' illness, of inflammation of the lungs, on the 23rd Jan., 1820, in the 53rd year of his age and the full vigor of manhood, prematurely cut off when he was most wanted to protect his wife and infant daugther, and just when his noble nature and manly virtues, which had been so long misunderstood and misrepresented, were beginning to be appreciated in England.

The Third Period of the History of Canada culminated in the unhappy rebellion of 1837-8. There is neither time, nor is this the place, to enter into the consideration of the causes which led to that outbreak; but I would recommend all who have not already heard or read it, to refer to the able paper on the History of Canada, by Mr. John W. Cook, which has been published in this year's transactions. It may, however, be remarked, that there must have existed during the period a fair measure of prosperity, as the population, which at the conquest was only 65,000, had then increased to about 465,000 in Upper Canada, and to 690,000 in Lower Canada—making a total of 1,155,000.

The Fourth Period of Canadian History is to be dated from the Union of the Provinces in 1841, when the population in the Upper Province amounted to 465,375, and in the Lower to 690,782—making a total of 1,156,157. The Union, we are aware, was objected to by Upper Canadians, on the ground that it would destroy the character of Upper Canada as a British Province. In Lower Canada it was asserted, that French Canadian influence would be rooted out for ever, and that the stipulations and guarantees would be violated. We are now about to enter upon a Fifth Period: and it will be useful to turn to statistics to see how far these anticipations have been realised. We find that at the present moment the population of Upper Canada is given by Mr. Arthur Harvey, a careful and reliable statist, at 1,802,056; that of Lower Canada at 1,288,880—making a total of 3,090,936. And of these there

are of French origin in Upper Canada 33,287, and in Lower Canada 847,320—making a total of French origin of 880,607; giving an increase of 183,825 over the *whole* population of Lower Canada at the time of the Union. Then, as to the great question of Religion: so complete has been Civil liberty, so perfect the "freedom to worship God," that we find our fellow-colonists of the Roman Catholic Church numbering forty-five per cent. of the population of the united Province. I think this requires no comment; so I shall conclude with a short extract from Mr. Cook's paper:—"The great national progress which Canada has achieved since the Union of the two Provinces, has been accompanied by progress of a higher order. Schools, colleges and universities have sprung into existence. As the education of the people advances, it will be easier to work well and wisely a system of government, which greatly depends for its success on the information possessed by the people. A broader and greater Union is advocated by our ablest statesmen, under the full sanction of Imperial authority. A national spirit is gradually growing and strengthening. Nor need the fact, that the population of Canada is sprung from different races, be a source of weakness. French and English, Scotch and Irish, may well retain the traditions of their fathers, and be at the same time good and loyal Canadians. They may cherish the memories of the old lands, while uniting in defence of the new, in which God has blessed them with a healthy climate, a productive soil, and a free government."

APPENDIX

"Right's House, Chateauguay River,
"27th October, 1813.

"Advance Brigade Orders.

"Major-General De Watteville has much satisfaction in conveying to the troops composing the advance, by desire of his Excellency the Commander of the Forces, the high

sense which his Excellency entertains of the conduct of the several corps engaged with the enemy in the affair of yesterday, under the immediate command of Lieutenant-Colonel DeSalaberry.

"His Excellency was pleased to express his entire approbation of the discipline, coolness and bravery displayed by all ranks on this occasion, which reflects the highest honor upon all concerned.

(Signed,) "GEO. F. BURKE,
"Major of Brigade."

"Head Quarters, La Fourche,
"On the Chateauguay River,
"27th October, 1813.

"General Orders.

"His Excellency the Governor-in-Chief and Commander of the Forces has received from Majer-General De Watteville, the report of the affair which took place in front of the advanced positions of his post, at 11 o'clock on Tuesday morning, between the American army, under the command of Major-General Hampton, and the advanced piquets of the British, thrown out for the purpose of covering working parties, under the direction of Lieut.-Colonel DeSalaberry; the judicious position chosen by that officer, and the excellent disposition of his little band, composed of the light company Canadian Fencibles, and two companies Canadian Votigeurs, repulsed with loss, the advance of the enemy's principal column, commanded by General Hampton in person, and the American Light Brigade, under Colonel McCarty, was in like manner in its progress on the south side of the river, by the gallant and spirited advance of the flank company 3d Embodied Militia, under Capt. Daly, supported by Captain Bruyer's company of Sedentary Militia. Captains Daly and Bruyers being both wounded, and their companies having sustained some loss, their position was immediately taken up a flank company of the 1st battalion Embodied Militia. The enemy rallied and repeatedly returned to the attack,

which terminated with the day in his complete disgrace and defeat, being foiled by a handful of men not amounting to a twentieth part of the force opposed to them, but which nevertheless by their determined bravery maintained their position, and screened from insult the working parties, who continued their labors unmolested. Lieut.-Col. DeSalaberry reports having experienced the most able support from Captain Ferguson in command of the light company Canadian Fencibles, also from Captain Jean Bapt. Duchesnay, and Captain Juchereau Duchesnay of the two companies of Voltigeurs; from Captain Lamotte and Adjutants Hebden and O'Sullivan, and from every officer and soldier engaged, whose gallantry and steadiness were conspicious and praiseworthy in the highest degree.

"His Excellency the Governor-in-Chief and Commander of the Forces having had the satisfaction of himself witnessing the conduct of the troops on this brilliant occasion, feels it a gratifying duty to render them that praise which is so justly their due: to Major-General De Watteville for the admirable arrangement established by him, for the defence of his post; to Lieut.-Colonel DeSalaberry for his judicious and officerlike conduct displayed in the choice of position and arrangement of his force; to the officers and men engaged with the enemy, the warmest acknowledgments of his Excellency are due, for their gallantry and steadiness, and to all the troops at the station the highest praise belongs for their zeal, steadiness and discipline, and for the patient endurance of hardship and privation which they have evinced. A determined perseverance in this honorable conduct cannot fail of crowning the brave and loyal Canadians with victory, and hurling disgrace and confusion on the head of the enemy that would pollute their happy soil.

"By the report of prisoners, the enemy's force is stated at 7,500 infantry, 400 cavalry, and 10 field pieces. The British advanced force actually engaged did not exceed 300. The enemy suffered severely from our fire, as well as from their own—some detached corps having fired upon each other by mistake in the woods.

"Canadian Light Company had 3 rank and file killed; I sergeant, 3 rank and file wounded.

"Voltigeurs, 4 rank and file wounded

"3rd batt. Flank Company, 1 captain wounded: 2 rank and file killed, 6 wounded, 4 missing.

"Chateauguay Chasseurs, 1 captain wounded.

"Total—5 rank and file killed; 2 captains, 1 sergeant, 13 rank and file wounded, and 4 missing.

"Officers wounded—Captain Daly, 3d Embodied Militia, twice wounded severely, but not dangerously; Cat. Bruyers, Chateauguay Chasseurs, slightly

(Signed,) "EDWARD BAYNES, Adjutant-General."

Advance Post, 1st November. 1813.

"Sir,--Referring to the General Order of the 31st ultimo, issued in consequence of the action in which I repulsed General Hampton's army, I observe, with regret, that the choice of the several positions which I defended, is not attributed to me,—neither is the disposition of the force, which was immediately under my command, understood to have been altogether mine; from which the greater part of the merit (if any there was for contending against a whole army for the space of four hours) is taken away from me. To elucidate this matter, it appears necessary I should state, that, when it was reported on the 21st ultimo at Chateauguay church, at night, the enemy had surprised the picket at Peper's Road, I was desired to move with my corps to English River; and finding, when there, that the enemy's intention appeared to be to move down the River Chateauguay, on his way to Montreal, I lost no time in pushing on the troops, and took up the three advanced positions, and began to fortify them as well as I could (having then only few axes) and distributed the troops for their defence. I ordered also the famous abattis, situated two miles in front of the above-stated positions, to which I marched on the 26th; from whence I re-

connoitered the American army in the act of advance; from whence I completed my dispositions for the defence of both sides of the Chateauguay; from whence after an obstinate engagement of four hours, I succeeded in defeating their project of penetrating into the country, and finally obliged him to retire to his former position, five miles back, with the loss of about seventy killed and sixteen prisoners, besides a great number of wounded, about one hundred and fifty stand of arms and six drums, &c., &c. which fell into our hands. Moreover, he has since retired into his own country.

"It is true General De Watteville inspected my positions and approved of them, and of the orders I had given for their defence. The dispositions to receive the enemy on the 26th were made by myself: no one interfered with them; and no officer of superior rank came up till after the action was over. It is true I was ably seconded by Lieut.-Col. McDonnell, of the Glengary Fencibles, who had taken up the fourth position two days before the action, and by all the officers under my command.

"I regret also to observe, in perusing the order of the 27th, that it is supposed I had been thrown forward to cover working parties. This idea is erroneous, inasmuch as there were no works carrying on there but such abattis and defences as appeared to me necessary to prevent my positions from being outflanked or forced. Those I ordered myself—no engineer directed them. I placed myself in front of the abattis, with the view to begin the defence of the country. I judged it a good position, from whence I could have a good view of the enemy's columns, which, I was apprised, were in full march. This I did of my own accord. It was a desperate undertaking—it succeeded; and the enemy, instead of going to Montreal, is gone to Four Corners.

"The enemy's intention is ascertained by concurring circumstances, and by the report of prisoners. He was not, then, in full march, with all his baggage and artillery, for the purpose of only attacking a few workmen.

"These are the true circumstances attending the action on the 26th; and it grieves me to the heart to see that I must share the merit of the action, and that it must be reduced to my having covered a few workmen. Methinks, if any merit is to be obtained, I am entitled to the whole.

"I cannot conclude without soliciting that this representation may be placed before His Excellency the Governor General, to whose justice I confidently appeal.

"I have the honor to be, Sir,

"Your most obt. humble servant,

"CHAS. DESALABERRY,

"Lieut.-Colonel, commanding Voltigeurs.

"To the Adjutant-General."

Extract of a General Order, dated—

"Adjutant-General's Office,

"Head-quarters, Montreal, 4th Nov., 1813.

"His Excellency the Governor-in-Chief and Commander of the Forces has the highest pride and satisfaction in declaring his acknowledgments to the loyal and brave Militia of Lower Canada, for the zeal and alacrity with which they flew to their posts, and for the patience and firmness with which they have endured, in this inclement season, the severe hardships and privations to which they have been exposed. The steadiness and discipline of the whole have been conspicuous; and the undaunted gallantry displayed by six companies, almost to a man composed of Canadian Fencibles and Militia, under the immediate command of Lieutenant-Colonel De Salaberry, in repelling, with disgrace, an American invading army, twenty times their number, reflects unfading honor on the Canadian name.

(Signed,) "EDWARD BAYNES,

"Adjutant-General."

"Head-quarters, Montreal,
"18th April, 1814.

"I am directed by the Commander of the Forces to transmit, enclosed for your information and for the information of the detachments concerned, the copy of a letter His Excellency has just received from the Commander-in-Chief, expressive of His Royal Highness's satisfaction at the good conduct displayed in the affair on the Chateauguay.

"I have the honor to be, Sir,
"Your most obedient humble servant,
"NOAH FREER,
"Military Secretary.

"To Lieut.-Colonel Chas. DeSalaberry,
" Inspecting Field Officer, Militia Lt. Infantry."

(Copy.) "Horse Guards,
"24th December, 1813.

"Sir,—I am to acknowledge the receipt of your Dispatch of the 30th October last, respecting the very gallant and successful resistance made by the detachments under the command of Lieut.-Colonel DeSalaberry, against an attack of a very superior body of the enemy's army, led by Major-Gen. Hampton in person, upon the advanced posts, near the Chateauguay River;—and I have derived much satisfaction from receiving so flattering an account of the eminent skill and determined bravery displayed by the officers and men of the very small portion of the Regular Troops and Militia employed on this occasion; and I shall not fail to bring their conduct under the gracious consideration of the Prince Regent.

"I am, Sir, yours,
(Signed,) "FREDERICK,
"Commander-in-Chief.

"Lieutenant-General
"Sir George Prevost, Bart.,
" &c., &c., &c.,
" Canada."

"A true copy.
"NOAH FREER,
"Military Secretary."

"House of Assembly,

"Tuesday, 25th January, 1814.

"Resolved, *nemine contradicente*, that the thanks of this House be given to Lieutenant-Colonel DeSalaberry. of the Canadian Voltigeurs, and the several other officers under his command, for their distinguished exertions on Tuesday, the twenty-sixth day of October last, in the glorious action on the Chateauguay River; and that the Speaker of this House have it in charge to signify the same to the said Lieutenant-Colonel DeSalaberry and the several other officers, that this House doth highly feel and acknowledge the distinguished valour and discipline so conspicuously displayed by the non-commissioned officers, private soldiers and militia men of the little band under the immediate command of Lieutenant-Colonel DeSalaberry, in the signal defeat of the American army, under the command of General Hampton, at Chateauguay aforesaid; and that the same be signified to them by the commanding officers of those corps, who are desired to thank them for their gallant and exemplary conduct.

"Attest. WM LINDSAY, JR.,
"Clk. Assembly."

"Quebec, 11th March, 1814.

Sir,—I have the honor to transmit to you the thanks of the Legislature Council of this Province, unanimously voted on the 2nd of February last to yourself, and to the officers and men under your immediate command, for 'distinguished conduct and bravery in the action of the 26th 'October last, on the River Chateauguay, when a small 'but heroic band of native troops repulsed the advance of 'the American army, under General Hampton.'

"Upon an occasion so exclusively and so highly honorable to His Majesty's Canadian subjects, in which loyalty, courage, zeal and ability were equally conspicuous, I have

the highest satisfaction in obeying the order of the Legislative Council, which directs me to signify their thanks to you, and to request that you will communicate them to the officers and men, to whom they have reference, in the way which you may deem proper.

"I have the honor to be, Sir,

"Your most obt. and very humble servant,

"J. SEWELL,

"Speaker Legislative Council,

"Lower Canada.

"Lieut.-Col. DeSalaberry."

"Adjutant-General's Office,

"Head-quarters, Quebec, 26th March, 1814.

"General Orders.

"His Excellency the Governor-in-Chief and Commander of the Forces feels the highest gratification in obeying the commands of His Royal Highness the Prince Regent, transmitted in a letter from the Right Honble. the Earl Bathurst, one of His Majesty's Principal Secretaries of State, of which the following is a copy, and which His Excellency directs to be published in General Orders, and read at the head of all corps in this command:—

" 'His Royal Highness has observed with the greatest satisfaction the skill and gallantry so conspicuously displayed by the officers and men who composed the detachment of troops opposed to General Hampton's army. By the resistance which they successfully made to an enemy so vastly disproportionate, the confidence of the enemy has been lowered, their plans disconcerted, and the safety of that part of the Canadian frontier ensured. It gives his Royal Highness peculiar pleasure to find, that His Majesty's Canadian subjects have at length had the opportunity (which His Royal Highness has been long anxious

should be afforded them) of refuting, by their own brilliant exertions in defence of their country, that calumnious charge of disaffection and disloyalty with which the enemy prefaced his first invasion of the Province.

" 'To Lieutenant-Colonel DeSalaberry, in particular, and to all the officers and men under his command, in general, you will not fail to express His Royal Highness's most gracious approbation of their meritorious and distinguished services. His Royal Highness has commanded me to forward to you, by the first safe opportunity, the colours which you have solicited for the embodied battalions of the Militia, feeling that they have evinced an ability and disposition to secure them from insult, which gives them the best title to such a mark of distinction.'

"By His Excellency's command,

"EDWARD BAYNES,

"Adjutant-General, N. A."

"To His Royal Highness the Prince Regent of the United Kingdom of Great Britain and Ireland, &c.

"May it please your Royal Highness, we, the faithful subjects of His Majesty, the Commons of Lower Canada in Provincial Parliament convened, most humbly beseech your Royal Highness to take into your most gracious consideration the services which Lieutenant-Colonel Charles DeSalaberry has rendered to his country, by his skill and courage, in the glorious affair of 26th Oct., 1813, on the River Chateauguay, in repulsing, at the head of three hundred of his country-men, a division of the American army, under the command of General Hampton, disconcerting the plans of the enemy, diminishing his confidence, and securing the safety of the Province.

"Therefore His Majesty's most faithful Commons most humbly pray, that your Royal Highness will be pleased to take into consideration these most distinguished services,

so as to stimulate in the future the emulation of our compatriots for the defence of this Province against the enemies of His Majesty; and ordain that a grant of the lands of the Crown be made to Lieutenant-Colonel Charles De-Salaberry, or to issue any other order which, in your Royal Highness's opinion, may be suitable.

"Address passed 20th March, 1815."

Extract of a letter from the Duke of Kent, dated—Kensington Palace, 15th June, 1814:—

"I am most happy to tell you that, however the Commander of the Forces may have sought to obscure your high and distinguished merit for your gallant cool conduct in the affair of Chateauguay, it is not the less appreciated on this side of the water; for it has appeared evident to every reader of the public despatches, that to you the public are indebted, as the gallant leader of the heroic band, for the glorious result of the business. I have only to add my hearty good wishes for your health, happiness and prosperity, and to assure you of the friendly regard and sincere esteem with which I shall ever remain,

"My Dear DeSalaberry,

"Yours faithfully,

"EDWARD."

Extract from *Montreal Gazette*, 22nd August, 1817:—

" We understand that Lieut-Colonel Charles De Salaberry, late commanding the Canadian Voltigeurs, has been appointed member of the Legislative Council. It is said that the mandamus has lately arrived. However trifling this mark of distinction, when compared with the character of that distinguished officer, we are gratified to see it conferred on him by Government, in the absence of any other recompense for his meritorious services."

(Translation.)

"Kensington Palace,

"15th March, 1814.

"My dear DeSalaberry,—On 31st December, I received your interesting letter of 10th November, in which you give me an account of the advance of the Canadian army on 27th October, and of the brilliant affair which your son gained by his arrangements. I received at the same time his letters, in which he gave me the details; and I hesitate not to declare my opinion, that you have reason to be proud of the victory gained by my *protégé* over forces so superior in numbers to those which he commanded,—but also that he displayed talents and judgment rarely to be found, unless in veterans, both in making his dispositions and during the battle.

"I have seen, with pain, that the report of the Adjutant General does not do him justice, as he does not give him exclusive credit for the dispositions made, and the success which resulted from them. But you may confort yourself with the idea, that there is not any one here who does not regard him *as the hero who saved Lower Canada,* by the decisive steps which he took and the bravery with which he opposed his little band of heroes to the troops of the enemy, so superior in numbers. I have talked the matter over with the Duke of York, and he appears completely convinced that to your son belongs the whole merit; and I have no doubt he will find occasion to reward him in a manner appropriate to his desire and merit. You may rest assured that this is the effect produced by the reports of the English officers who were present and witnesses of the affair.

"I must confess that, for a moment, I had very great fears for Canada, after the disgraceful defeat of General Proctor, and the defeat of our navy on Lake Erie; but the recent success of my friend, Lieutenant-General Drummond, has given me hope, and as the Government have made considerable efforts to re-establish our superiority

on the lakes, I anticipate that during the coming summer the face of things will be changed entirely to your advantage. This is the more likely, as it now appears that things on the continent are about to terminate with honor.

"Madame De St. Laurent, who is confined to her room by severe indisposition, will not be able to write you by this mail, as she desired, but has commissioned me to convey to you and Madame DeSalaberry and all your family a thousand regards; and I take the opportunity to renew those sentiments of friendship and affection with which I always am,

"Dear DeSalaberry,

"Yours most affectionately,

"EDWARD.

"Lieut.-Colonel DeSalaberry, Sen.,

"Beauport,

"Quebec."

PAPER III.—THE FUTURE COMMERCIAL POLICY OF BRITISH NORTH AMERICA.

BY T. H. GRANT, ESQ., SECRETARY OF QUEBEC BOARD OF TRADE.

(Read before the Society, March 20th, 1867.)

"PROTECT INDUSTRY, AND IT WILL PROSPER."

"Such part of the Natural History of Canada as regards wild animals is that which hitherto has received the greatest attention, on account of the commercial advantages derived therefrom. The animals which are to be principally found in our woods, are stags, elks, deer, bears, foxes, martens, wild cats, ferrets, weasels, squirrels ,hares, and rabbits. The southern parts, in particular, breed great numbers of wild bulls, divers sorts of roebucks, goats, wolves, &c. The marshes, lakes and pools, with which this country abounds, swarm with otters and beavers, of which the white are highly valued. The commerce in these articles, however, though at present of importance, must of necessity take a second rank, when compared with other branches, which must eventually arise. The productions of agriculture must ultimately be the staple commodities of the country;—and, even now, the fisheries might, with care and attention, be made to yield a return far superior to any derived from the trade in peltries."

Not half a century ago, an English gentleman, compiling a political and historical account of Canada, uttered the above truthful and prophetic language. Though at that time over three hundred years had elapsed since the day when Sebastian Cabot first landed on the south-west shores of the St. Lawrence—though the country had been alternately under French and British rule, and the civilizing influence of christianity had felt its way amongst the people, they had not learnt to dignify commerce by any

other employment than that of hunting bears and foxes, and chasing wild cats and deer. True, the farmer raised his wheat, oats and corn; the fisherman kept the markets supplied with the products of the lakes and streams; and an occasioned ship brought to hand what were called English luxuries,—tea, broad cloths and calicoes. Manufacturing, too, was not unknown amongst the people; for we are told that in their own households were made the soap and candles they consumed, the sugar they used, the shoes and moccasins they wore, and the greater part of their clothing. Partial researches into the aspect of the country had led to the discovery of a few iron and copper mines, and slate and marble quarries; still the country, though three centuries old, was yet in its infancy—these were but the germs of its future growth and prosperity. Far-seeing, reflecting men, predicted a successful career; and agriculture and the fisheries were to be the means to this great end.

Who is there to-day that, looking back into the history of those last fifty years, and comparing the past with the present, will not stop in amazement at the rapidity of our growth, the magnitude and variety of our improvements, and the solid character of our progress. Agriculture has, indeed, become the staple of the country, and British America is now enabled with her large surplus to supply cheap food to countries that half a century ago hardly knew of her existence. The fisheries have yielded up their wealth, and the vast waters of this northern continent of ours, from the banks of Lake Huron to the shores of Newfoundland, present a fishing ground unequalled in extent and richness. But these are not the only elements of our success. Commerce has not been idle, but, following in the track of the Mother Country, has extended her march throughout the world, so that British American ships may now be found on every sea, carrying home to us the products of foreign lands. That most important branch of industry—our manufactures—has also contributed in no small degree to our prosperity, and, if properly encouraged, must hereafter prove a source of great wealth to our people.

Four millions of British subjects are shortly to be united under one Government, enjoying all the privileges of a favoured people, and inheriting all the qualities of a race, whose virtues, influence and fame may be heard and felt in every quarter of the globe. In starting on this new career, with a smiling prospect before us, and a powerful arm to support her, the Government of the Dominion of Canada must so shape its policy, and direct its legislation, as to open up every avenue of trade, and foster and strengthen every branch of industry.

What that policy shall be, will be fruitful subject of discussion for some time to come. Various opinions are entertained by leading men in the Provinces as to the best mode of regulating the fiscal laws of the country, so as to stimulate and encourage the many industrial and commercial interests, and at the same time provide for the ordinary revenues. The extraordinary success of free-trade principles in Great Britain, and the great progress that has attended their operations in other countries, as well as the persistent efforts of financial reformers in England to abolish all duties, and resort to direct taxation, render very difficult the task of him who propounds any doctrine of a Protective character. And this is the case with the speaker. Educated by training and judgment to approve and admire the policy inaugurated by Sir Robert Peel, and fully aware of the inestimable benefits which it has conferred on the British people, he finds himself compelled, in view of the future greatness and independence of British America, to select as his motto that which heads this Essay —"Protect Industry, and it will prosper."

It is the opinion of most persons who have given the subject any attention, that the policy which has been pursued in Canada for some time past, of affording incidental protection to native industry, is the one which ought to be followed under Confederation. This opinion I cheerfully endorse, for if the skilful artisan, the respectable mechanic, and the inventive genius of our race, whether emi-

grant or native born, are to be induced to settle permanently in British America, we must protect the means by which the fruits of their skill and labour may be made profitable to them and the country. Let us take a glance, then, at the fiscal policy and commercial state of Great Britain, previous and subsequent to 1842, the year in which Sir Robert Peel inaugurated his epoch of financial reform, and see how far it compares with the present condition and future prospects of the British North American Provinces.

The long and expensive wars in which England had been engaged during the latter part of the last and the beginning of the present centuries, and the gross mismanagement and wilful extravagance of the government, had plunged the country so deeply in debt (the American war alone costing one hundred and forty millions pounds sterling), led to the imposition of duties that weighed with destructive force upon all the springs of industry. The first necessaries of life—indeed the very essentials—without which it cannot be maintained, are food and shelter; and these, as well as fuel and clothing, were so enhanced in price, as to be placed beyond the reach of millions. The oppressive tax upon corn; the onerous burdens inflicted upon tea, sugar, cheese, butter and beer; the tax on timber and bricks; the prohibitive duties on foreign products; and the enormous excise imposed upon home industry, which some years exceeded in amount the revenue from customs, had so paralysed every branch of trade ,as to call forth murmuring notes of discontent from one end of the kingdom to the other. An agitation for the repeal of the corn laws, and the amelioration of other burdens, awakened the attention of the Government, and emboldened the Whig ministry of 1841 to attempt some fiscal reforms. In 1837-8-9-40 there had been a growing deficiency in the exchequer, arising in part from increasing expenditure, partly from decay of trade under bad harvests, and partly (indeed chiefly) from the *restrictions on trade* and the heavy taxes. New debts were contracted,—first by the issue of exchequer bills, then by these being

funded and added to the national debt. In 1840 an Act was passed granting additional duties on customs, excise, and assessed taxes: the additions being five per cent. on customs, except on spirits, grain or flour, imported; on excise, five per cent.; and ten per cent. on assessed taxes. This scheme brought no additional revenue; but a profound truth was put to the proof, namely,—that taxation had a limit, beyond which it cannot be imposed, at which it will summarily arrest consumption. The Whigs, as a last resort, yielded to the demand for financial and commercial reform, by proposing alterations in the duties on corn, sugar and timber; but they were driven from office, and Sir Robert Peel and his party, as *Protectionists*, admitted instead. Then followed the scheme of that man to relieve the people from the oppression under which they groaned, and which was followed by a marked improvement in trade and comfort. The income tax was imposed; and the extension of the four-shilling duty on the exportation of coal, hitherto partial, to all exportations of that article. This would give a revenue ample to supply the deficit, and leave a large surplus, which was to be applied in the largest reduction in commercial taxation ever contemplated by Cabinet or Parliament. Out of twelve hundred articles subject to duties, seven hundred and fifty were to be reduced. The first principle was, the Minister said, to remove prohibitions, and the next to reduce duties on the raw materials of manufacture to five per cent., or less; on articles partially manufactured to twelve per cent., and on manufactured to twenty per cent. The beneficial effects of this policy were immediately felt, in the increase of every branch of trade, and a general improvement in the condition of the people. The change did not come too soon; for it was obvious that, with an increasing expenditure in taxes and food during the war period, from 1792 to 1815, if it had not been for countervailing circumstances of an extraordinary kind, the national industry could not have been sustained under the depression. The many mechanical inventions of the time had increased enormously the productive power of the nation, and by, relatively to food, cheapening and extending the supply of

other necessaries of domestic comfort, rendered the payment of heavy taxes possible, which otherwise would have been impossible.

Now, it is the prevailing opinion amongst the great majority of absolute free-traders in this country, that the real cause of the grievances under which the British public laboured, previous to the repeal of the corn laws, was the high price of bread, and the taxes on imports. This is an error. While it must be admitted that the English people suffered considerably from the dearness of bread, caused by the prohibitive duties on wheat, still it cannot be denied that the primary evil which afflicted them was the intolerable burdens imposed on the national industry. Enormous duties were put upon the raw material, running from 50 to 500 per cent., and on the manufactured article an excise so great as to become positively oppressive. The effect of this was to enhance the price of all commodities to the consumer—to deny them to a large portion of the population—to prevent competition and creat huge monopolies, and to curtail and limit the productive power of the manufacturer. In addition to this, there was a war of material injuries going on between the Continental states and Great Britain, directed against the importation of foreign commodities, which led to the celebrated Berlin and Milan decrees, preventing, at least as far as the influence of France could effect it,any intercourse with England. These were the causes which led to the free-trade policy of Sir Robert Peel, who although he removed the excise duties on manufactures, and reduced the tax on the raw material, deemed it necessary to maintain a protective duty of from 25 per cent. to 30 per cent. on foreign productions.

Having thus glanced very briefly at the prohibitive and free-trade career of England, let us see how far British America at present compares with her in its adaptability to an exclusively free-trade policy.

At the period of which I speak, the resources of Great Britain had been fully developed, and her productive

power attained to such a degree of perfection, that it struggled for competition in the markets of the world. Extravagant expenditure and costly government had so shackled its free operation, that the very elements of its growth and vigour would have caused its decay if the obstacles to its expansion had not been removed. Under a protective tariff, it had grown and prospered, and, confident in its strength, it sought for freedom of action. In British America to-day quite an opposite state of things prevails. Here, manufactures are in the incipient stages of growth: they are just starting into life. Competition, it is true, is the life of trade, where trade is vigorous, just as the blood is the life of man—the more freely it flows through and permeates the body, the more force and vitality it gives to the system. But new enterprises, in a young country especially, require the aid of a fostering government, just as the sapling needs care and nourishment until it is strong enough to stand alone. While competition in England has not only carried her productions all over the world, but, by the introduction and perfecting of skilled labour, has considerably improved them; competition in these Provinces would destroy native industry, because we have not the power to compete with older and wealthier countries,such as Great Britain, France, Germany, and the United States. The chief elements of a manufacturing trade, according to the old political economists, are capital, labour, and material; to which must now be added—skill, and steam power. In every one of these essentials, we are excelled by the countries just named. Even Russia, and powerful as she is, is obliged, in self-defence, to maintain a tariff so high, that it almost amounts to prohibition.

It will be conceded, without argument, that we are very deficient in capital; and this is one of the chief obstacles we have to contend with. England, on the contrary, has more money than she can profitably employ at home, and is obliged to seek investment abroad. In England, too, money can be obtained at less than one-half what it can be procured for in Canada. In France, a mechanic of small means

and good character can obtain a loan from the Bank of France, the Savings' Department of that institution having been specially established by the Emperor to facilitate the enterprise, and encourage the industry of the respectable artisan. To-day there is not sufficient capital in British America for its legitimate wants, and in a number of instances many a promising undertaking has failed through want of means to support it. From this cause, competition amongst ourselves—a most desirable thing to cultivate—has been suspended, and in several branches of trade there is to be found an almost entire monopoly.

As regards labour, and skilled labour, especially, the manufacturing nations of Europe have a decided advantage over us. The amount of poverty prevailing everywhere, the number of poorhouses and benevolent societies existing in all the chief cities, are convincing proofs that the supply of labourers far exceeds the demand; and, in Germany and England particularly, the wages which the work man receives are so small as barely to enable him to keep body and soul together. As regards the cost of production, labour is the chief item, and this is obtained at so low a rate from amongst the teeming populations of the old world, and in England especially, that competition is reduced to a minimum. In British America there is no absolute scarcity of labour; but, owing to the superior condition of the people, the effect of constant high wages in the United States, and the numerous and varied resources open to the working man on this continent, he can always command a much higher rate of wages. Thus, in addition to the scarcity of capital, or the excessive rate of interest, which the manufacturer is compelled to pay for its use, he has to contend against the additional disadvantage of a much higher rate of wages. This, however, is not a matter of regret; for if the manufacturing interests on this continent are to be fostered by sacrificing the comfort and happiness of the artisan, as they are in the old world, it were better we had no manufactories at all. Such, nevertheless, are the difficulties they have to encoun-

ter at present, that if the existing protection were removed, a reduction of wages would be the immediate result; and with heavy annual expenses and a large public debt, which Confederation will rather increase than diminish, there is no possible chance of relief by a reduction of the duties upon imports. There is also, in connection with this subject, the question of skilled labour. During the last twenty years a marked revolution has taken place in the quality of the labour employed in the factories of the world. Industry is not now supported by mere manual labour, but by a competition of intellect. The scientific principles involved in manufactures are taught in schools, which are to be found in every town in Europe; while each metropolis can boast of an industrial university, teaching the alphabet of science, as applied to manufactures. In England, foreign talent has been employed to a great extent, and skilled artisans from France, Belgium and Germany may be found in all the chief factories of Manchester, Birmingham, Sheffield, &c. In the present state of our manufactories in these Colonies we cannot afford to import designers to produce patterns, and pay them liberal salaries; and our own mechanics, as a general rule, do not possess the scientific knowledge that will qualify them to originate improvements in management, skill and execution. For a time, therefore, we must be content to follow and imitate—to send our capital abroad as a premium to that intellectual progress which we should enjoy at home. Here, then, is another barrier to the successful development of our industrial interest under an absolute free-trade policy,—and it is a barrier so formidable that it becomes the duty of the Government to remove, if they would promote the future prosperity of the country. An able writer of the present day says, on this question:—"If the main object of life were to fabricate *literati*, I would not dispute the wisdom of making classics the groundwork of our education. They are not utterly dead, but, like the dry bones of the valley, they may come together, and have breathed into them the breath of life. Classical literature and exact science are,however,wholly antithetic. If classical

literature be sufficient to construct your spinning-jennies and bleach your cottons, your system of instruction is right; but if you are to be braced, and your sinews strengthened, for a hard struggle of industry, is it wise that you should devour poetry, while your competitors eat that which forms the muscle, and gives vigour to the sinews? With such different trainings, who in the end will win the race?" How can we, as a nation, expect to carry on those manufactures by our sons of industry, when we do not teach them the nature of the principles involved in their successful prosecution? The progress of science and industry, in countries which have reached a certain stage of civilization, ought naturally to be synonymous expressions, and hence it follows that it is essentially the policy of a nation to promote the one which forms the springs for the action of the other.

Manufacturing industry is one of the primary conditions on which our social system is based. Providence, in his beneficence, causes the earth to yield a variety of products for the benefit of man, nearly all of which require to go through a process of preparation and manufacture before they can be fitted for his use. Thus the raw material, as it comes from the hand of nature, is so fashioned by the skill and ingenuity of the artisan and the artist as to be converted into articles of great utility and value. England, in the wisdom of her government and people, has cultivated this branch of trade to such an extent, and brought it to so great a perfection, that her ships may be found on every sea, bringing to her shores the material and the ingredients, which she cannot produce at home. The vast extent of her operations, and her never-failing supply of money, enable her to command the markets of the world. Thus it is that, with a constant supply of coal at her very door, to heat her furnaces, the powerful aid of machinery, which she invents and constructs in her own workshops, and the skilled labour of her mechanics, she calls into existence fabrics, utensils, implements, ornaments, and works in every department of science and art, that, for utility, durability and cheapness, cannot be ex-

celled. British America, though we are not altogether deficient in the raw material, the resources of the country have not been yet sufficiently developed to enable us to depend on our home supplies. We must still look to foreign countries for nearly all the articles that enter into our manufacturing operations. The machinery for our mills and factories chiefly comes from the United States. True, there exist in the Provinces many foundries and machine-shops; but, compared with those of our neighbours, they are in a somewhat rude and imperfect state. Nearly all the iron consumed in the country, and the quantity is considerable, is imported from Great Britain. Our own mines have not so far been made to yield anything like an adequate supply; and even if they did, we have neither smelting works, nor refining furnaces, to extract the iron and convert it into the raw material. Coal is to be found in abundance in Nova Scotia and Cape Breton; but the quality of the Scotch and English is so much superior, that it is more extensively consumed—an additional item of expense to the manufacturer. In the articles of soap and candles, the ingredients which are chiefly used in their composition— tallow, palm-oil, and wick—are imported from the States; as also corn, which enters largely into the manufacture of starch. As regards leather and wooden manufactures, we do enjoy some advantages, by producing the raw material in the country. Still, though our tanneries turn out good and durable hides, there is also a considerable demand for English and French leathers; and in the article of house furniture—a most important branch of Canadian industry—hair, damasks, canvas, veneers, springs, glass, varnish, paint and hardware, are all imported. Indeed, so much do these articles enhance the cost of cabinet-ware, that our manufactures have been unable to compete against the fifteen per cent, duty, which the Lower Provinces have maintained against us. Essential as it may be to establish thorough free-trade between the Provinces, it is unquestionably true that the extension of the principle to other nations would, at present, bring nothing but disaster upon our industry.

In discussing this most interesting question, we must not overlook the fact, that we have at our door a powerful and enterprising nation,—rich in all the varied resources necessary to raise her to the highest point of excellence and prosperity in manufacturing industry. Proud as we are, and ought to be, of the many advantages we enjoy in British America, we must not despise the lessons which the history of that great country teaches us, nor appear insensible to the influence her future career may have upon our commerce. Thirty millions of people, ingenious, intelligent and industrious, inhabiting a country of vast extent and wealth, and with almost unlimited powers of production, cannot possibly remain dependent for any great length of time upon the supplies of a foreign nation. In addition to the many facilities they possess for the prosecution of a manufacturing trade, the natural tendency of the people is to render themselves thoroughly independent of others, and to build up a powerful and permanent industrial interest in the state. With the return of peace, and the re-establishment of open communication with the South, enterprises hitherto abandoned, or newly projected, will spring into life and activity. The protection and encouragement which their manufacturers needed and sought before the war, the war has necessitated, and henceforth a high tariff may be regarded as the accepted policy of the country; and, in addition to the numerous articles produced at present, they will hereafter look more to their own spindles and looms for the finer as well as the coarser fabrics worn by the people. It would be highly interesting, did time permit, to record a brief history of the rise and progress of American manufactures—the policy pursued, and the result to the country. It would give weight and force to this Essay, and present a picture of prosperity unexampled in the history of the world When it is stated that the United States have a capital of $200,500,000 in manufactories, employ nearly two million hands, and produce annually the enormous value of two thousand millions of dollars in manufactured articles alone, some idea may be formed of the present

extent of that great branch of industry, and how futile the attempt would be for British America to attempt to compete with her. Why, it is admitted to-day that, notwithstanding the high pre-eminence to which English manufactures have arrived, it is doubtful whether England will be able to maintain her ability to cope with foreign nations. The Americans are becoming powerful rivals. No other country can purchase cotton so cheap—no other country has such extensive water privileges; and the enormous increase in the coke and bituminous coal production and iron of the country, are sources of manufacture, that require only capital and enterprise to convert them into mines of wealth, and that must increase her powers of competition to an almost unlimited extent. In addition to all this, the policy of the American Government has been eminently protective. Washington and Jefferson first turned the attention of the people to the cultivation of such articles as formed the basis for domestic manufactures; and from that date (1774) to the present the United States have, with some exceptions, maintained that manufactures were as necessary to their independence as to their comfort, and have directed their legislation so as to foster and promote them. The manufacturing interests in the Union are to-day clamorous for increased protection, and if the tariff bill recently before Congress is passed into law, they will enjoy a discriminating duty of fifty to one hundred per cent. It is clear, therefore, that "British Americans" will not be able, for many years to come, to enter the field of competition with the United States. What, then, is the duty of the people of these Provinces? Let us inquire.

The commercial history of the world is full of instruction to the new, and one of the most important lessons to be learnt from it is this,—that wherever, amongst an industrious people, manufactures have been established, and science and art have been involved as an element of their progress, that nation which most cultivated them has been in the ascendant. England, France, Belgium and Germany are bright examples of the truth of the assertion, and the growing greatness of the Anglo-Saxon races on this

continent furnishes an additional proof. If, therefore, we would build up and strengthen this new nationality about to be conferred on us; if we would bind together, in bonds, which cannot be severed, the affections and interest of the people, and give force and vitality to their energies; if we would create a spirit of self-reliance and independence among our race; if we would offer tangible inducements to the old country artisan to settle amongst us, and give us the benefit of his skill and labour, if not his money,—we must open up all the resources of the nation, and encourage and protect all the varied branches of manufacturing industry. The population of our cities, growing as they are, must be employed; occupation must be afforded, during our long and cold winters, to the large majority of those who inhabit our towns; and the only effectual mode of doing this is by keeping alive the workshop, the factory, and the mill. Absolute free-trade would crush these out, and their ruin would be disastrous to our future welfare. Rich and extensive as are our agricultural lands, the best quality of them are now under cultivation, and the government are nearly sold out. Our timber forests, vast and valuable as they are, cannot last for ever. Like the coal of England, they are doomed to exhaustion; and when that day comes, if our manufacturing industry has been neglected, what shall we give our people to do? This is a serious question for the consideration of our statesmen and intelligent business men. Protection to-day is not the monster it was when England groaned under heavy taxes, and struggled to be free. Protection to-day does not mean enormous excise duties and prohibitory laws. It means, in these Provinces at least, if our rulers are wise, the largest amount of freedom, with the lightest sum of taxation—prudence and economy in the management of the public finances—every branch of commerce unfettered and free from oppressive burdens—freedom of intercolonial trade in the largest acceptation of the term, and a fair, just and moderate protection to native industry. Under such a policy "British America" would continue to advance with rapid strides, and, relying

on her own strong arm, and the ever-ruling wisdom of Providence, may we not hope that he who lives to look back upon the next half century will be able to do so with feelings of pride and thankfulness as strong and cheering as those which actuate him who to-day is permitted to review the history of the last fifty years.

APPENDIX.

REPORT OF THE COUNCIL

OF THE

Literary and Historical Society of Quebec,

FOR THE

YEAR ENDING 31st DECEMBER, 1866.

THE Council has the honor to submit the following Report:—

It may be remembered that, in the last year's Report, the Council had to regret a serious falling off in the list of members, by the withdrawal of some from the Society, and the removal of no less than thirty others to Ottawa; but it is satisfactory now to report, that the hope then expressed has been more than realised, and that the Society at present shews a list, in numbers and standing, all that could be desired. The Treasurer's account shews 122 members who have paid dues up to 31st ultimo.

The stated meetings, and nearly as many extraordinary, have been regularly held and well attended, and papers, as subjoined, have been read; and it will be observed, with pleasure, that Part IV. of the News Series of the Transactions contains papers of much interest and practical bearing on matters immediately connected with the Province—two of them being in French; and papers have been promised for the remainder of the Session.

The arrangement with Morrin College proved mutually advantageous, the Council trust it will be maintained till either of the parties shall have provided itself with a suitable building which it can call its own.

The Council having received a proposition from the Board of Directors of the Quebec Library Association, for the transfer of their Library to the Literary and Historical Society, for the nominal sum of $500; the object being to prevent the dispersion of a very valuable collection, they appointed a committee consisting of the President, Captain Ashe, Dr. Anderson, Rev. J. Douglas, C. G. Holt, and T. Fournier, Esqs., to meet the Board, ascertain the condition of the Library, and discuss details; and, on their report, an

extraordinary general meeting was held, which unanimously sanctioned the purchase, and, in accordance with a resolution then passed, the transfer has been completed, and the Library handed over to Dr. Anderson, as the representative of the Literary and Historical Society, by the proper officers of the Quebec Library Association. The Council will have to make arrangements for the selection and removal to these rooms of such books as it will be found expedient to retain, and the rest will be sold either by private sale or public auction, as may be deemed most advantageous.

The Council take this opportunity of submitting to the consideration of the Society, whether the time has not now arrived when it has become necessary to appoint a paid sub-Librarian, who should attend in the Library, receive and deliver the books, and make proper entries.

The Treasurer's account of last year shewed an apparent balance in favor of the Society of $670.86. This balance, however ,was only apparent, as there remained unsettled accounts which the Council had to meet, amounting to the sum of $328.63. Notwithstanding this, and the very large outlay incurred in the purchase of the Library of the Quebec Library Association, the Treasurer's account for this year shews a very satisfactory balance, which, as the Council believes, can only be reduced by one half-year's rent past due Morrin College on November last, amounting to $60, and certain current expenses, which will not exceed $100 more.

There now stands to the credit of the Society the sum of $621.96, composed as follows:—

Historical Document Fund	$154.67
Life Members' Fund	54.65
General Fund	412.64
	$621.96

During the past year the Society has had to deplore the loss of one of its oldest and most distinguished members, George B. Faribault, Esquire. Mr Faribault was for many years President of the Society, and was widely known for his valuable contributions to Canadian History. The publication of the Memoirs of the Sieur de Ramsay, under the auspices of the Society, in 1861, was mainly due to him; as was also the procuring from St. Malo of very valuable Correspondence and Documents. He died full of years and honor; and the Society has the gratification of possessing a striking portrait of him, which they trust will always grace the Library while the Society continues to exist.

They have also to lament the death of another former Member, M. F. X. Garneau, Esquire, the historian, who was prematurely cut off in the midst of his usefulness.

In conclusion, the Council have much pleasure in adopting the closing paragraph of last year's Report:—"So many new members have been elected, and so hearty a determination has been shown to work vigorously and maintain its character, that we have no fears lest failure and decline should succeed the prosperity of the last few years."

E. D. ASHE.

PAPERS READ BEFORE THE SOCIETY.

1866.

Janv. 17.—By N. H. Bowen, Esq.—"On Music, as a branch of Education."

" 13.—By L. Berthelotte, Esq.—"On Animal Magnetism."

Feby 7.—By The Bishop of Quebec.—"On Ancient English Poetry."

" 21.—By J. W. Cook, Esq.—"On Canadian History."

Marcr 7.—By E. D. Ashe., Esq.—"On Insurrection in Jamaica of to-day compared with that of 1852."

" 21.—By Hector Fabre, Esq.—"On Litterature Canadienne."

April 4.—By F. Austin, Esquire.—"On some of the Fishes of the St. Lawrence."

Novr 7.—By E. D. Ashe, Esq.—"On Solar Spots."

" 21.—By Rev. Mr. Sherring.—"On India."

Decr. 5.—By Rev. E. Hatch.—"On the History of the Alphabet."

" 19.—By Dr. Anderson.—"On Canadian History and Biography, and passages in the lives of a British Prince and a Canadian Seigneur.

" 26.—By Capt. Faucher de St. Maurice.—"On the Mission of the Man of Letters in Modern Society."

Dr. The Treasurer in account with the Quebec Literary and Historical Society Cr.

1866.			
Jany. 1.—To Balance from 1865, viz.:—			
General Fund	$427 04		
Historical Document Fund	189 17		
Life Member's Fund	54 65		
		$ 670 86	
Nov. 10.—To Government Grant		750 00	
To Subscriptions received from Members		601 00	
To Interest on Balances		12 07	
To Sale of Historical Documents		10 00	
		$2043 93	

1866.			
Jan. 1 to By Books, Periodicals, and Binding	$239 46		
Dec. 31. By Purchase of Quebec Library	500 00		
		$ 739 46	
" By Specimens for Museum		50 15	
" By Printing Transactions		97 50	
" By Furniture, Shelves, &c., for Museum and Library.		55 25	
" By Advertising		54 30	
" By Insurance		53 77	
" By Balance of Rent to Morrin College (expended in books)		150 07	
" By Gas, Fuel, and Water		45 78	
" By Collector's Commission		20 80	
" By Discount on Silver		16 00	
" By Assisstant Secretary		40 50	
" By Petty expenses, Postages, and Express charges		33 84	
" By Balance of Refreshments account (1865)		11 05	
" By Printing Historical Documents		44 50	
" By Balance in Quebec Provident and Savings' Bank, viz:—			
Historical Document Fund	154 67		
Life Members' Fund	54 65		
General Fund	412 64		
		621 96	
		$2043 93	

E. & O. E.

Quebec, 31st December, 1866.

HENRY FRY, Treasurer.

We hereby certify that we have examined the Treasurer's foregoing account with the vouchers for 1866, and found the same correct. The whole balance, $621.96, is on deposit with the Quebec Provident and Savings' Bank.

D. WILKIE, J.HORAN, Auditors.

Quebec, January, 1867.

LIST OF MEMBERS.

Life Member.

THOMAS GLOVER, ESQUIRE.

Associate Members.

Archbishop of Quebec.
Archer, Joseph, junior.
Alleyn H. C.
Austin, H. C.
Austin, F. W G.
Anderson, W. J.
Ashe, E. D.

Blanchet, H.
Breakey, W.
Bennett, Benson.
Belleau, Jas. F.
Blanchet, J. B., M. D.
Budden, J. S.
Bossé, Hon. J. G.
Boswell, J K.
Baby, M. W.
Baillargé, L. G.
Bertolotto, .
Burroughs, J. H. R.
Baillargé, C.
Bedard, W.
Buchanan, A. C.
Burroughs, E.
Bowen, N. H.

Campbell, Arch.
Caron, Adolph.
Clark, W. B.
Chinic, E.
Cauchon, Hon. Joseph.
Caron, L. B.
Casault, L. B.
Colston, J. G.
Couper, Wm.
Campbell, W. D.
Cary, G. T.
Chessar, Wm.

Dawson, S. J.
Drapeau, S.
Dunscomb, J. W.
Doucet, P. A.
Dunbar, J.
Dunn, W.
Delagrave, C.
Douglas, J. junior.

Ely, John A.

Fraser, Alex.
Fothergill, Rev. M. M.
Foote, T. J.
Fiset, L. J. C.
Fabre, Hector.
Fry, H.
Fournier, T.
Fraser, A.
Fitzgerald, C. . J.
Forsyth, J B.
Faucher de St. Maurice.
Fry, E. C.
Fry, J. S.

Gibb, James.
Gregory, J. U.
Geibb, James, junior.
Goldstone, George.
Gethings, H. R.
Gibsone, Geo. C.
Gourdeau, F.
Gilmour, John.
Glass, John.
Garneau, P.
Gleason, John.
Grant, T. H.

Hall, G. B.
Home, G. R.
Harrison, R. M.
Hamilton, Rev. Chas.
Hamilton, Robt.
Hearn, M. A.
Hunt, Weston.
Harrower, J. T.
Hart, Geo.
Horan, J.
Hossack, Jas.
Hossack, W.
Holt, C. G.

Irvine, Geo.

Joseph, A.
Jackson, A. H.
Johnstone, Peter.
Jolicoeur, P. J.
Joly, H. G.

Larue, J. E.
Lemesurier, John.
Landry J. E., M. D.
LeSueur, P.
Legaré, M. D.
Langlois, C. B.
Laidlaw, Thos.
Lemieux, C. E., M. D.
Larue, G. H.
Langlois, J.
LeMoine, J. M.
LeMoine, Gaspard.
LeDroit, T.

Murray, D.
Murphy, O.
Maxham, A J.
Miller, M.
Mills, J. W.
Michon, E.
McAdams, W. J.
Macauley, S. S.
Mountain, M. G.
McNaugton, P.
Moodie, Walter
Montizambert, C. N.
Marsden, W., M. D.
MeNaugton, John.
McBlain, H.
McGreevy, Thos.
Montizambert, F., M. D.

Patton, Duncan.
Panet, Louis.
Parke, Jas., junior.
Paradis, O. E.
Poston, W.
Peters, H. J.
Peebles, P.
Plamondon, A.

Quebec, J. W.

Reynar, Joseph.
Ross, H. D.
Ross, Thos.
Richardson, J. R., M. D.
Renaud, J. B.
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Scott, H S.
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Thibaudeau, Hon. I.
Tetu, L.
Tessier, C.
Tachereau, H. J.
Tessier, Hon. U. J.
Taschereau, H. E.
Tetu, C.

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